

**Meeting of the Federal Open Market Committee on  
October 30–31, 2007**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, October 30, 2007, at 2:00 p.m., and continued on Wednesday, October 31, 2007, at 9:00 a.m. Those present were the following:

Mr. Bernanke, Chairman  
Mr. Geithner, Vice Chairman  
Mr. Evans  
Mr. Hoenig  
Mr. Kohn  
Mr. Kroszner  
Mr. Mishkin  
Mr. Poole  
Mr. Rosengren  
Mr. Warsh

Ms. Cumming, Mr. Fisher, Ms. Pianalto, and Messrs. Plosser and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Lacker and Lockhart, and Ms. Yellen, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

Mr. Madigan, Secretary and Economist  
Ms. Danker, Deputy Secretary  
Ms. Smith, Assistant Secretary  
Mr. Skidmore, Assistant Secretary  
Mr. Alvarez, General Counsel  
Mr. Baxter, Deputy General Counsel  
Mr. Sheets, Economist  
Mr. Stockton, Economist

Messrs. Clouse, Connors, Fuhrer, Kamin, Rasche, Slifman, Sullivan, and Wilcox, Associate Economists

Mr. Dudley, Manager, System Open Market Account

Mr. Struckmeyer, Deputy Staff Director, Office of Staff Director for Management, Board of Governors

Mr. English, Senior Associate Director, Division of Monetary Affairs, Board of Governors

Messrs. Reifschneider<sup>1</sup> and Wascher, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Wright, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Mr. Zakrajšek, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Blanchard, Assistant to the Board, Office of Board Members, Board of Governors

Ms. Johnson, Senior Adviser, Division of International Finance, Board of Governors

Mr. Oliner, Senior Adviser, Division of Research and Statistics, Board of Governors

Mr. Dale,<sup>1</sup> Senior Adviser, Division of Monetary Affairs, Board of Governors

Mr. Gross,<sup>1</sup> Special Assistant to the Board, Office of Board Members, Board of Governors

Mr. Small, Project Manager, Division of Monetary Affairs, Board of Governors

Messrs. Kumasaka<sup>2</sup> and Luecke,<sup>3</sup> Senior Financial Analysts, Division of Monetary Affairs, Board of Governors

Ms. Judson, Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Specialist, Division of Monetary Affairs, Board of Governors

Mr. Lyon, First Vice President, Federal Reserve Bank of Minneapolis

Messrs. Judd and Sniderman, Executive Vice Presidents, Federal Reserve Banks of San Francisco and Cleveland, respectively

Mr. Altig and Ms. Mester, Senior Vice Presidents, Federal Reserve Banks of Atlanta and Philadelphia, respectively

Mr. Hakkio, Special Adviser, Federal Reserve Bank of Kansas City

Messrs. Hilton, Koenig, and Potter, Vice Presidents, Federal Reserve Banks of New York, Dallas, and New York, respectively

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

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<sup>1</sup> Attended portion of meeting relating to the discussion of communication issues.

<sup>2</sup> Attended Tuesday session only.

<sup>3</sup> Attended Wednesday session only.

Mr. Hetzel, Senior Economist, Federal Reserve Bank of Richmond

**Transcript of the Federal Open Market Committee Meeting of  
October 30-31, 2007**

**October 30, 2007—Afternoon Session**

CHAIRMAN BERNANKE. Good afternoon, everybody. This meeting is Karen Johnson's last. She attended her first meeting in 1991 and has been a regular participant for the past ten years, so she has ninety-one total FOMC meetings to her credit. Karen has been briefing the FOMC on international financial and economic matters since she became head of the International Finance Division in 1997, and she has done a great job of covering about 95 percent of the world's population and about two-thirds or more of the world's economic activity. Also, as the head of IF, she has logged an awful lot of miles to World Bank-IMF meetings, the BIS, and elsewhere. She has given me a lot of good advice on jetlag, I can assure you. She is going to finance her retirement with frequent-flyer miles. [Laughter] So, Karen, I am sure every member of the Committee would like to join me in thanking you for your dedication and your excellent advice and counsel. Best of luck. [Applause]

MS. JOHNSON. Thank you.

CHAIRMAN BERNANKE. I have the less pleasant duty of reminding everybody about the *Wall Street Journal* article on our communications policy that appeared some time ago. I don't think anybody actually leaked the story, because the way Greg Ip works is that he goes around and talks to each person and gets a little of the story and then builds it up in that way. Nevertheless, I think it is obviously bad for our institution when our internal deliberations become public, and so let me just ask everyone, please, to be especially careful about maintaining confidentiality. Thank you.

For our first item today, in light of Karen's retirement, we would like to propose Nathan Sheets to be an economist for the FOMC until the first meeting of 2008. Do I have a motion?

SEVERAL. So moved.

CHAIRMAN BERNANKE. Without objection. Thank you. Next, we turn to Bill Dudley.

MR. DUDLEY.<sup>1</sup> Thank you, Mr. Chairman. I am going to miss Karen as my fellow scribe at the BIS. She also was the person who identified who was actually speaking. [Laughter]

Two crosscurrents have dominated financial markets since the September 18 FOMC meeting: (1) greater discrimination by investors with respect to credit quality across asset classes versus (2) ongoing deterioration in credit quality within the class of mortgage-related assets. On the one hand, underlying market function has generally improved. In particular, investors have shown greater ability to differentiate between the corporate and the mortgage sectors and between different types of products such as collateralized loan obligations (CLOs) versus collateralized debt obligations (CDOs). Most of the asset-backed commercial paper market is no longer under duress, bank funding pressures have abated somewhat, and the issuance of CLOs and high-yield debt has increased. On the other hand, those areas more closely linked to the U.S. housing sector remain under pressure. This includes the subprime mortgage market, the mortgage-backed securities market, and financial entities—such as mortgage and financial guarantors—that have significant exposures to these asset classes.

The tension between the improved ability of investors to discriminate among risky assets versus the deteriorating fundamentals is illustrated in the performance of the ABX indexes. These indexes measure the cost of buying protection on different tranches of particular vintages of mortgage-backed securities that hold subprime mortgage loan assets. I will be referring to the handout in front of you. Exhibit 1 shows the performance for the 07-01 vintage—that is, mortgage-backed securities originated mainly during the second half of 2006. As can be seen, the prices of the lower-rated tranches have continued to plunge in response to rising delinquency rates for subprime loans and the virtual shutdown of the subprime mortgage market. In contrast, the performance of the AAA-rated tranche has held up better, especially until very recently. This suggests that investors are more carefully distinguishing between the implications of widespread subprime losses for those tranches, such as AAA, that are in a senior position in the structure versus lower-rated tranches, where the losses may well be large enough to wipe out their value altogether. Similarly, investors appear to be doing a better job of discriminating between the different types of asset-backed commercial paper programs. Those with high-quality, diversified

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<sup>1</sup> Materials used by Mr. Dudley are appended to this transcript (appendix 1).

collateral or strong bank support or both are performing well. In contrast, those programs with less solid support—mainly SIV and extendible programs—in which the commercial paper holders are more vulnerable to loss continue to hit liquidity and capital triggers and are gradually being wound down. As shown in exhibit 2, the overall asset-backed commercial paper market has been contracting recently at a much slower pace than earlier in the summer. Moreover, secured commercial paper rates have narrowed significantly relative to the overnight index swap rate and relative to top-quality unsecured commercial paper (exhibit 3).

The ability of banks to securitize assets also appears to have improved. In particular, as shown in exhibits 4 and 5, CLO and high-yield debt issuance has picked up. However, CDO issuance remains very depressed relative to the level of issuance earlier in the year. Investors have lost confidence in this product as market prices have plunged and the rating agencies have begun to cut their ratings, often very sharply, on many outstanding CDOs. Market participants are more willing to buy corporate debt for three reasons. First, the underlying fundamentals in the corporate sector remain good. Second, the underlying assets are much easier to value. Third, investors are more willing to trust the credit ratings in this area. The rating agency models have been battle-tested over a much longer period and have been shown to be robust across a broad range of environments. In contrast, the ability of banks to securitize nonconforming mortgage loans remains impaired. Nevertheless, spreads between jumbo and conforming mortgage loan rates have come in a bit (see exhibit 6). This may reflect diminished pressure on bank balance sheets from other sources.

Overall, term funding pressures for banks have diminished as banks have gained greater clarity about their future funding needs and the need for excess liquidity has diminished. Nevertheless, term funding pressures still persist. As can be seen in exhibit 7, although the spreads between one-month LIBOR and the one-month overnight index swap rate and three-month LIBOR and the three-month overnight index swap rate have narrowed, these spreads remain high relative to the level of spreads evident at the beginning of the summer. Exhibit 8 shows the same spreads for Europe—they have also come in but remain higher than normal. Although the credit default swap (CDS) spreads for the large investment banks and the large commercial banks narrowed following the last FOMC meeting, much of this improvement has been reversed over the past two weeks as the housing outlook has deteriorated further and as the earnings announcements for several major financial institutions have disappointed investors. Similarly, the CDS spreads for mortgage insurers and financial guarantors have widened. These CDS spreads are shown in exhibit 9.

The broader bond and equity markets have generally shown improvement. In the fixed income market, credit default swap spreads have fallen somewhat for the high-yield debt market (see exhibit 10), and the U.S. equity market has largely recovered over the past couple of months (see exhibit 11). Interestingly, despite the poor earnings of the financial sector and the outlook for slower U.S. growth, earnings expectations of equity analysts for 2007 have declined only slightly, and the decline

in 2007 has been offset by an upward revision to 2008 earnings estimates (see exhibit 12). Moreover, the demand for downside protection in the equity market has diminished. Exhibit 13 examines the relative cost of buying a put versus a call. A positive skew is consistent with a greater cost of downside protection. Although a significant positive skew persists, it is now much lower than it was immediately before the September 18 FOMC meeting. Exhibits 14 and 15 summarize the incomplete transition away from risk-reduction behavior by financial market participants. Exhibit 14 shows the correlation of daily price movements and yield changes across the different asset classes for the time interval between the August and the September FOMC meetings. As can be seen, the correlations were very high—indicating that risk aversion was the dominant impulse among investors—with most of the correlations over this period exceeding an absolute value of 0.5. These are shaded in blue in the exhibit. In contrast, the same correlations since the September 18 FOMC meeting, shown in exhibit 15, have come down but remain much higher than during the first half of the year.

Two other market developments deserve a brief mention before I turn to dealer expectations concerning monetary policy and a brief look at inflation expectations. First, crude oil prices have shot higher. There is considerable disagreement among market participants about how long the higher prices will last and the factors behind the price surge. Although some argue that it is speculative, others point to more-fundamental drivers such as inventory drawdowns, geopolitical uncertainties, and dollar weakness. Regardless of the cause, the effect on the macroeconomy has been modest up to now because higher crude oil prices have not fed through meaningfully into product prices. That is because the so-called crack spread—the margin between the value of the refined products produced from that crude oil and the cost of crude oil supply—has come down sharply, as shown in exhibit 16. The narrowness of the crack spread implies that further increases in crude oil prices, if forthcoming, would likely feed through into product prices. Second, the dollar continues on its gradual downward course. Although the dollar has reached new lows against the euro and the Canadian dollar, the overall pace of the decline as measured by the broad trade-weighted index has not changed much from the trend exhibited earlier in the year (see exhibit 17). The dollar's trajectory still appears to be driven mainly by interest rate differentials. This can be seen in exhibit 18, which shows the dollar versus the euro relative to the Eurodollar–EURIBOR interest rate differential. Moreover, there is little evidence that the dollar's slide has made investors less willing to participate in the long end of the U.S. bond market. You can see that by the fact that U.S. 10-year Treasury note yields are still fairly low, trading around 4.4 percent.

Market expectations about monetary policy have shown considerable variability since the last FOMC meeting. Exhibit 19 tracks the implied probability of different target rate outcomes at this meeting calculated from the option prices on federal funds futures contracts. As can be seen in the exhibit, the probability of a 25 basis point cut has fluctuated in a wide range. The most recent survey of primary dealers, conducted ten days ago, shows a slight tilt toward a 25 basis point cut at the current meeting, with eleven dealers expecting a 25 basis point cut, nine expecting no change, and one

expecting a 50 basis point reduction. Since that time a number of dealers have shifted camp. Currently, a more informal survey by the Desk indicates that nineteen out of twenty-one dealers expect a 25 basis point rate cut at this meeting. Exhibits 20 and 21 show the primary dealer forecasts for the federal funds rate before the September and the current FOMC meetings. As can be seen, the dealers' forecasts for the federal funds rate path are currently a bit lower than before the September 18 meeting—partially reflecting the fact that the FOMC easing of 50 basis points at the September meeting was of greater magnitude than the cut embodied in the average dealer forecast. Also, the gap between the dealers' forecasts and the expectations embodied in market rates has narrowed over the past six weeks. As can be seen, considerable disagreement about the rate path remains. One year out, the dispersion of the modal dealer forecasts remains very wide.

Inflation expectations increased following the 50 basis point rate cut in September. However, the degree of widening is sensitive to how the forward breakeven inflation rate is calculated. Exhibit 22 shows the five-year, five-year-forward implied inflation rate as estimated by the Board staff versus the five-year, five-year-forward breakeven inflation rate as estimated by Barclays Bank, a major participant in the TIPS market. As can be seen in the exhibit, typically these two measures move together. More recently, however, they have diverged a bit, with the Board staff measure showing a more persistent increase following the September FOMC meeting. The two measures differ in the securities that they use to compare nominal versus inflation-adjusted yields—with the Board staff using a smoothed yield curve based on off-the-run nominal Treasuries and the Barclays measure using the on-the-run nominal five-year and ten-year Treasury notes to compare with the five-year and ten-year TIPS notes. However, liquidity differences among Treasury securities are hard to model. As a result, it is difficult to be confident of the accuracy of such adjustments. This argues that one should not completely dismiss the Barclays measure when the two measures are behaving differently. This might especially be true when no rise in long-term inflation expectations is evident in other measures, such as the University of the Michigan's survey of consumer sentiment or the Desk's own primary dealer survey.

Finally, I want to discuss briefly the Desk's performance in implementing the FOMC's directive from the last meeting for a 4.75 percent federal funds rate target. In this respect, let me make two observations. First, in contrast to the previous intermeeting period, in which the effective rate traded below the target for much of the period, the average effective rate has been extremely close to the target since the September 18 meeting. Exhibit 23 shows the cumulative effective rate relative to the target since the last meeting. Second, as shown in exhibit 24, there has still been more day-to-day volatility in the federal funds rate than earlier in the year. This pattern likely reflects several factors, including the demand by European banks for funds early in the day and the reduced spread between the discount rate and the target federal funds rate, which has altered the banks' demand for reserve balances.



There were no foreign operations during this period. I request a vote to ratify the operations conducted by the System Open Market Account since the September 18 FOMC meeting. Of course, I am very happy to take questions.

CHAIRMAN BERNANKE. Thank you very much. Are there questions for Bill? No questions? Okay. Then, may I have a motion to ratify?

MR. KOHN. So moved.

CHAIRMAN BERNANKE. Without objection. Thank you. A very thorough briefing. I don't know if we will have the same luck over on this side. [Laughter] Let me turn to Dave Stockton to begin the economic situation report.

MR. STOCKTON. Thank you, Mr. Chairman. From a forecast perspective, it's been a pretty wild ride over the intermeeting period, with our outlook for activity shifting sharply at various points in the process in response to large swings in the stock market, the exchange value of the dollar, and the price of crude oil. A couple of weeks ago, with the incoming data stronger, the stock market up substantially, and the dollar down noticeably, we were looking at a forecast that had economic growth moving materially above potential later in the projection period. It appeared that, after taking you for a tour of the sausage factory in my September briefing, I would need to issue a recall of that last batch of sausages even before the arrival of their typically short expiration date. In the event, the stock market retraced most of its earlier increase, and some of the improvement in financial conditions that had occurred immediately following the September meeting was subsequently reversed. As a consequence, our forecast changed relatively little, on net, over the past six weeks. The growth of real activity is higher in the near term, but in 2008 and 2009, the stimulative effects on GDP growth of the lower dollar are offset by the restraint on incomes and spending imposed by the higher path for oil prices. We expect the growth of real GDP to slow from a 2¼ percent pace this year to a 1¾ percent pace in 2008 before edging back up to a 2¼ percent rate in 2009. The period of below-trend growth late this year and next year results in some easing of pressures on resource utilization, and core inflation moves roughly sideways at just under 2 percent over the forecast period.

To my mind, recent developments raise three big questions about our forecast. First, does the broad-based strength that we have seen in the data on spending and activity over the intermeeting period suggest that we have overestimated the restraining effects on aggregate demand emanating from the recent financial turbulence? Second, is the staff missing signs of greater restraint on aggregate demand that will weigh more heavily on activity in the period ahead? Finally, with oil prices up sharply, the dollar having depreciated, and resource utilization a touch tighter, why is our forecast for core inflation about unchanged?

Let me start with the question about whether the strength in the incoming data casts doubt on our estimates of the restraining effects of financial turbulence. There can be little denying that, almost across the board, the readings on economic activity have been stronger than our expectations in September. In terms of domestic spending, the largest upside surprises have been in consumer spending, and much of the upward revision reflects data on activity after the financial turbulence had already begun. Overall consumer spending was stronger than we had expected in August, and the available information on retail sales and on sales of motor vehicles suggests that real PCE exceeded our expectations for September as well. At this point, we know very little about October. Chain store sales have softened somewhat but only by enough to make us comfortable with the meager monthly gains in spending that we are projecting for the fourth quarter. Our discussions with the automakers suggest that sales this month have remained reasonably steady. All told, third-quarter growth in consumption looks stronger than we had expected, and spending appears to be headed into the fourth quarter with a bit more momentum.

In the business sector, stronger purchases of motor vehicles led us to raise our forecast of equipment spending in the third quarter. The other components of E&S came in close to our expectations, though last week's data on orders and shipments of capital goods, which we received after the Greenbook was completed, were also a bit stronger than we had anticipated. The incoming data on construction put in place are consistent with our projected sharp slowdown in the growth of nonresidential structures after a surge in the second quarter. But even here, the data have outflanked us to the upside, with surprising strength in commercial construction, factory buildings, and telecommunications structures. Taken together, stronger consumption and investment account for only about half of the upward revision that we made to real GDP growth in the third and fourth quarters. The external sector accounts for the other half. In particular, continuing a pattern we have seen during much of this year, the growth of exports once again exceeded our expectations. We estimate that real exports increased at an annual rate of nearly 17 percent in the third quarter, about  $3\frac{1}{2}$  percentage points above our September forecast, and we have marked up export growth in the current quarter as well. The greater strength in both foreign and domestic demand led us to revise up the growth of real GDP in the second half of this year about  $\frac{1}{2}$  percentage point, with annualized growth rates of  $3\frac{1}{4}$  percent and  $1\frac{1}{2}$  percent in the third and fourth quarters, respectively.

So, do these fairly broad-based upward surprises in spending and activity suggest that we overreacted in the extent to which we marked down our projection in response to the recent difficulties in financial markets? It certainly seems a legitimate possibility. However, we think it would be premature to make that call. As Bill noted, financial market conditions have improved somewhat over the intermeeting period but remain far from normal. In terms of credit provision, the Senior Loan Officer Opinion Survey revealed a sharp jump in the fraction of banks reporting tighter terms and standards on loans to businesses and households, a development consistent with the restraint on spending that we have built into our forecast. Consumer sentiment remains depressed

relative to overall economic conditions, perhaps because of worries about financial developments. For now, although we have slightly trimmed the magnitude of the turmoil effects on aggregate demand, the more important adjustment in this forecast has been to push more of the restraint into next year.

At the other end of the spectrum of worry is the second question that I posed earlier: Have we missed some significant signs of potential economic weakness in the developments of the intermeeting period? Financial market participants seem to have reacted to the news of the past six weeks by marking down the expected path for the fed funds rate, whereas our forecast and policy assumptions are nearly unchanged. Is it possible that we are missing signs of an impending downturn in aggregate activity? Of course, the prudent and accurate answer to that question is always “yes.” But if that turns out to be the case, it won’t be for lack of attention. At present, it is difficult to find evidence in high-frequency indicators that the economy is in the process of turning down. Initial claims for unemployment insurance have remained relatively low, motor vehicle sales are reported to have been well maintained at least through mid-October, commodity prices are firm, reports from purchasing managers continue to suggest modest expansion, and few anecdotes outside the housing sector sound as though we’ve moved past a tipping point.

If we are missing something important, it seems more likely to me that we could be facing a more-grinding period of subpar economic performance associated with a deeper and more-protracted adjustment in the housing sector. It might seem a bit surprising to point to housing as a major downside risk when this has been one aspect of our forecast that was right on the mark over the intermeeting period; we had expected steep declines in sales and starts, and that is what we got. But I would counsel you not to take too much comfort from that observation. In our forecast, we expect sales and starts of new single-family homes to decline another 8 percent before bottoming out around the turn of the year. The projected configuration of starts and sales is consistent with a dropback in the months’ supply of unsold new homes from an estimated peak of 8½ months early next year to 4½ months by the end of 2009. Residential investment continues to fall through the middle of next year and only edges up thereafter. But it is not difficult to envision a more painful period of adjustment. We know a huge inventory imbalance still exists in the housing sector. If, in response to that imbalance, house prices register steeper declines than the ones we are forecasting, prospective purchasers could experience an even greater fear of buying into a declining market, reinforcing the housing sector’s drag on aggregate activity. Moreover, sharply lower prices could have more-serious implications for the ability of households to refinance existing mortgages and could impair the performance of mortgage markets more broadly. Those strains, as they have in recent months, could spill over into other areas of the financial markets. As we showed in a couple of alternative simulations in the Greenbook, a steeper decline in house prices and construction activity could result in a path for the fed funds rate that does not differ materially from the one that appears to be currently built into market expectations. We remain comfortable with our baseline projection for housing, but it is still easier to see sizable downside risks than sizable upside risks to this aspect of our forecast, and that suggests to me that our modal forecast of GDP still has more weight to

the downside than the upside. That said, given the strength over the intermeeting period of the incoming data outside housing, that downward skew is probably less pronounced in this forecast than in the one we presented in September.

Turning to the price projection, the question I posed at the outset was why our forecast of core price inflation is largely unchanged given higher oil prices, a lower dollar and tighter resource utilization. With respect to resource utilization, both the GDP gap and the unemployment rate suggest only slightly tighter product and labor markets than in our previous forecast, and given the flatness of our aggregate supply curve, the effect on prices over this period is negligible. As for the lower dollar, we see higher import price inflation in the near term in line with the recent depreciation, but these effects quickly play through. More broadly, the available evidence continues to suggest that exchange rate pass-through to import prices is quite low, which in turn mutes the effects on broader prices. The indirect consequences of higher oil prices are a bit more consequential, and all else being equal, would have added about a tenth to our core price projection in 2008. But not all else was equal. The incoming data on core PCE prices were again slightly more favorable than we had expected. The surprise in this intermeeting period was largely in nonmarket prices. More broadly, the deceleration that we have observed in core PCE prices over the past year has been greater than can be explained by our models, and we have carried a bit larger negative residual forward in this forecast. As a consequence, we expect core PCE price inflation to move sideways at a 1.9 percent pace in 2008 and 2009, unchanged from our previous forecast. Overall price inflation is projected to move down from 3 percent this year to 1.8 percent in 2008 and 1.7 percent in 2009. The deceleration in overall prices reflects some decline, on net, in energy prices over the next two years and a dropback in food price inflation to a rate closer to that of core consumer prices. On the whole, I'd characterize the risks around our inflation forecast as roughly balanced. Nathan will continue our presentation.

MR. SHEETS. Although the foreign economies appear to have grown at a moderate pace during the third quarter as a whole, indicators for September and October suggest that the recent financial turmoil may yet leave an imprint on activity in some countries. Perhaps the most striking evidence on this score has been the ECB's survey of euro-area bank lending. In the third quarter, this survey showed the sharpest shift toward tightening in its five-year history, along with evidence of more-stringent credit standards for business and housing loans. In addition, we have seen downward moves in surveys and measures of sentiment in the euro area, particularly in Germany, although these indicators have generally remained in expansionary territory. In the United Kingdom, the growth of mortgage lending continued on a downward path in September, and a recent Bank of England survey suggests a tightening of corporate credit conditions. All in all, we see this (admittedly fragmentary) evidence as broadly consistent with our assumption in the September Greenbook that fallout from the financial turmoil is likely to exert some drag on growth over the next several quarters in the euro area, the United Kingdom, and Canada. This assessment, however, is marked by significant upside and downside risks—as it is still too soon to gauge these effects with much confidence. As in our

previous forecast, we do not see the turmoil weighing directly on activity in Japan or the emerging-market economies.

More generally, the contours of our forecast remain similar to those in September. Recent data have confirmed our expectation that average economic growth abroad declined to about 3½ percent in the third quarter, cooling from the very rapid rate in the first half of the year. We see growth edging down further in the current quarter, to just over 3 percent, and remaining at about that pace in 2008 and 2009. After the Greenbook went to bed, we received Chinese GDP data, which according to our seasonally adjusted quarterly estimate grew at an annual rate of just over 8 percent in the third quarter—a little slower than we had expected and down from the 14 percent rate in the first half of the year. This deceleration appears to have been led by a slowing in investment and a smaller contribution from the external sector. Going forward, economic growth in China should remain below its previous double-digit pace, as the Chinese authorities take further action to cool the country's booming real estate market and the rapid growth of bank lending.

In addition to uncertainty about the eventual effects of the financial turmoil on real activity, other risks to our generally favorable foreign outlook are worth noting. First on this list is the possibility of a softer-than-expected performance from the U.S. economy. Although there is talk in some quarters about so-called decoupling—that is, that the foreign economies may now be less linked to developments in the United States than has been the case in the past—the jury is still out on this point. Although domestic demand does appear to have firmed in some foreign countries in recent years, a marked slowing in U.S. growth would affect the rest of the world through trade channels (particularly Canada, Mexico, and emerging Asia) and, as highlighted by the recent turmoil, probably through financial channels as well. As a second risk, house-price valuations in many advanced economies appear elevated. Given that, a correction in housing markets abroad—with potentially sizable accompanying wealth effects—strikes us as an important downside risk for some countries. Third, although we see average foreign inflation remaining well behaved, at near 2½ percent over the next two years, inflation risks cannot be dismissed. After several years of exceptionally strong economic growth, the foreign economies on average are now operating near potential, and resource constraints may be more binding than we currently envision. In addition, food prices have moved up in many countries, and the prices of oil and other commodities are at high levels.

Indeed, recent developments in oil markets seem to pose intensified risks. The spot price of WTI is trading today at nearly \$92 a barrel, up \$5 since the Greenbook went to bed. Since your last meeting, the spot WTI price has climbed \$13 per barrel, while the far-futures price has increased about \$10 per barrel. It suffices to say that underlying supply-demand conditions in the oil market are exceptionally tight. Over the past several years, as the global economy has expanded briskly, oil production has increased only sluggishly—reflecting both OPEC supply restraint and diminishing production from OECD countries. Against this backdrop, the price of oil has been driven up further in recent weeks by reports of decreasing inventories (at a time of

year when such stocks are typically on the rise) and by intensified concerns about the stability of Middle East oil production, triggered by tensions between Turkey and Iraq and by concerns about U.S. relations with Iran. We see OPEC's plans to expand production 500,000 barrels per day beginning on November 1, even if fully implemented, as unlikely to go very far in defusing the tightness in the market. Futures markets call for WTI prices to remain elevated, in the neighborhood of \$80 per barrel, through 2015.

I conclude with some upbeat news on U.S. external performance. Exports continue to surprise on the upside, having shown exceptional strength in the July and August trade data, as exports of aircraft, autos, and agricultural products have all expanded briskly. Consequently, as Dave mentioned, real exports of goods and services are now thought to have surged at a pace of 17 percent in the third quarter, up 3½ percentage points from the last forecast. We estimate that real imports in the third quarter grew at a comparatively modest rate. Taken together, these data suggest that net exports made an arithmetic contribution of 1¼ percentage points to U.S. real GDP growth in the third quarter.

Going forward, we see export growth moderating to just under 8 percent in the current quarter and proceeding at a solid 6½ percent average rate through the next two years. Relative to our September forecast, the path of export growth is up nearly 2 percentage points in the fourth quarter and by lesser—but still sizable—amounts in 2008 and 2009. This higher projection reflects stimulus from recent declines in the dollar, which have exceeded our previous projections. The broad dollar index has dropped more than 3 percent since your last meeting. But in addition to support from the weaker dollar, we now see greater underlying strength in exports than we had previously thought. Our projected path for imports, in contrast, is little changed from the last Greenbook. Import growth is slated to bounce up in the current quarter, largely because of a seasonal rebound in oil imports. Thereafter, the projected strengthening of U.S. growth and a deceleration in core import prices should provide increasing support to imports. All told, we see the external sector making a neutral contribution to U.S. real GDP growth in the fourth quarter, contributing 0.4 percentage point to economic growth next year, and returning to neutrality in 2009 as imports accelerate. Thus, to the extent that our forecast materializes, large negative contributions from net exports might very well be a thing of the past. Brian will now continue our presentation.

MR. MADIGAN.<sup>2</sup> I will be referring to the package labeled “Material for FOMC Briefing on October Projections.” The table shows the central tendencies and ranges of your current forecasts for 2007 and the next three years. Where available, the central tendencies and ranges of the projections last published by the Committee—those submitted for inclusion in the July Monetary Policy Report—are shown in italics.

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<sup>2</sup> Materials used by Mr. Madigan are appended to this transcript (appendix 2).

Notably, a majority of you conditioned your current projections on an easing of monetary policy, with most of that majority apparently seeing lower rates as appropriate either imminently or within the next six months or so. Even with that assumed easing, your GDP growth forecasts for 2007 have been marked down slightly since last June, and your outlook for next year has been revised down more substantially. Many of you noted that last summer's NIPA revisions led you to lower your estimate of potential GDP growth. Most of you cited the intensification of the downturn in housing markets, the turmoil in financial markets, and higher oil prices as factors leading you to scale back your expectations for actual growth in 2007 and 2008, though some participants commented that rising net exports could provide support to aggregate demand. The central tendency of the economic growth forecasts for 2008 is now 1.8 percent to 2.5 percent, below the central tendency of  $2\frac{1}{2}$  percent to  $2\frac{3}{4}$  percent in June. Perhaps partly because you expect easing whereas the staff assumed an unchanged stance of policy, the central tendency of your economic growth projections is above the Greenbook forecast of 1.7 percent for real economic growth in 2008. That difference may also reflect your somewhat more optimistic view of potential growth. It is worth noting that the divergence among your views concerning the outlook for next year has widened substantially: The width of the central tendency, for example, at nearly  $\frac{3}{4}$  percentage point, is about three times that in the June projections.

The downward revision to the outlook for GDP growth was mirrored in a small upward revision to the unemployment rate: The central tendency of the projections for unemployment at the end of this year is around  $4\frac{3}{4}$  percent, and it centers on a rate just under 5 percent at the end of next year. Based on the comments that some of you have made about sustainable rates of unemployment and on your longer-run unemployment projections, many of you apparently predict the emergence of a small amount of slack by the end of next year.

With incoming data on core inflation a bit better than you had expected and with some slack likely next year, the central tendency of your projections for core PCE inflation is down noticeably for 2007 and is a shade lower for 2008; most of you now see core inflation below 2 percent in both years. Your near-term forecasts for total PCE inflation are higher than those for core inflation, reflecting surging energy prices and, in some cases, an expectation of continued brisk increases in food prices.

With regard to the uncertainties in the outlook, most of you see the risks to growth as tilted to the downside—even with an assumed easing of policy—and judge that the degree of uncertainty regarding prospects for economic activity is unusually high relative to average levels over the past twenty years. Your commentaries highlighted downside risks arising from the possibility that financial market turmoil and tighter credit conditions could exert unexpectedly large restraint on household and business spending and that the downturn in housing could prove even steeper than currently anticipated. A slight majority perceived the risks to total inflation as broadly balanced, and a more sizable majority judged that the risks to core inflation are in balance; in both cases, those in the minority saw the risk to inflation as tilted to the

upside. As the experience in the September trial run highlighted, the Committee's policy statement will need to be reviewed carefully for potential inconsistencies with the risk assessments submitted with the projections. I will return to that issue tomorrow.

Turning to the longer-horizon forecasts, you expect real GDP growth of around 2½ percent and unemployment slightly above 4¾ percent in both 2009 and 2010. Judging from your forecast narratives, these projections are close to your estimates of the economy's potential growth rate and the level of the NAIRU. The former is a bit higher than the staff estimate of about 2.1 percent potential growth, and the latter is close to the staff estimate. For 2009 and 2010, all of your core inflation forecasts are in a range of 1½ to 2 percent. A couple of you expect rising prices of food and energy to keep total inflation above 2 percent in 2009, but all of your forecasts for total inflation are within a range of 1½ to 2 percent in 2010. Many of you state that you view your projections for inflation in 2010 as consistent with price stability.

CHAIRMAN BERNANKE. Thank you. Are there questions for our colleagues? Vice Chairman Geithner?

VICE CHAIRMAN GEITHNER. Dave, this is about the Greenbook forecast—I was going to say existentialism, but I am not sure that is quite right. [Laughter] Dave, is the Greenbook forecast something we should view as a modal forecast, as I think you implied, or the expected value of the range of plausible scenarios that might have—

MR. STOCKTON. Well, I would say this is a modal forecast, and as I indicated, I think there is probably more downside mass than upside mass in that probability distribution at this point.

VICE CHAIRMAN GEITHNER. Is the monetary policy path that you reveal in the Greenbook based on the modal forecast?

MR. STOCKTON. Thinking about our forecast as a modal forecast is correct.

VICE CHAIRMAN GEITHNER. Thank you. If I could ask one more question. In the Greenbook, you reveal the usual assumptions for what you anticipate for total credit growth, and you show it decelerating significantly over this period. How does the deceleration you are anticipating look compared with a range of previous periods in which the U.S. economy was



slowing significantly or periods following substantial financial distress? For example, if you compare it with 2001-02 or 1990-91, is it a modest deceleration in credit growth, or does it look large compared with that?

MR. STOCKTON. Well, I should get the facts before I answer your question in terms of exactly how this compares with both the 2000 period and the 1990 period. We could certainly do that and circulate it to the Committee. Obviously, in our forecast we have credit growth decelerating not just because overall activity is decelerating but because we think there will be some important restraints on credit availability going forward. Most of that, of course, is on the mortgage side, but some of it is on the business credit side as well. That said, we are not forecasting a deep credit crunch. If you were more concerned that that was what you were facing, I don't think this forecast is consistent with it. This forecast is consistent with some unusual restraint on the availability of credit, principally on the mortgage side but more broadly elsewhere, but not truly a deep or strong headwind type of episode in which there is substantial impairment going forward. As I noted at the last meeting, even the restraint that we do have on the credit side fades over the coming year.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you. I have two brief questions. One, in business investment, particularly equipment and software, you have somewhat of a rebound in the early half of '08, and then it falls off again in the latter half of '08. I didn't quite understand. Given the way you have the recovery in housing coming in the middle of '08 and presumably some of the credit-tightening cycle gradually diminishing, why is business investment falling off again in the latter half of '08? The second question, just to get them both out on the table, is that you are predicting that a 25 basis point unexpected boost to the fed funds rate would result in a fall in equities of

about 2 percent. Now, the papers I have read randomly about that suggest that such an estimate is probably a bit on the high side. I just wonder where that number came from.

MR. STOCKTON. We took that estimate from a paper by Ben Bernanke and Ken Kuttner.  
[Laughter]

MR. PLOSSER. I thought that was 5.3 percent for 100 basis points, right, which would be a decline of a little over 1 percent, not 2.

CHAIRMAN BERNANKE. Of course, we have multiple estimates. [Laughter]

MR. PLOSSER. Sorry. I just read the wrong one

MR. STOCKTON. We felt that in the past we did not typically worry about that sort of surprise effect, given that overall our ability to predict asset prices is so limited to begin with. This seemed stark enough that we thought we should probably lean in that direction. Whether we are too large or too small I don't know. It's not a very significant or consequential effect. Obviously, we are not pretending to forecast all the things that might happen if you were not to ease at this meeting in terms of how the financial markets might take that. We're just trying to take the biggest pieces, and that's where we were.

MR. PLOSSER. And the investment piece?

MR. STOCKTON. It looks to me as though some of the investment piece has to do with the idiosyncrasies of our forecast of the high-tech area. The underlying core piece of E&S spending follows pretty much a standard accelerator path, where things slow down more evenly through next year and then begin to pick up with the overall pickup in activity toward the end of next year as we move into 2009. So I think your basic intuition about what you should have seen is there. We have some slowdown in high-tech spending that sort of progresses. In transportation, in particular, things are especially weak in the first half of this year. They pick up a little in the beginning of next year

and then slow down again, and that really is more based upon our forecast of motor vehicles and our forecast for aircraft production.

MR. PLOSSER. Thank you.

CHAIRMAN BERNANKE. President Poole.

MR. POOLE. I have two questions. I guess the first is more a comment than a question. When we look at the net exports—and I think you commented on that in terms of the outlook—it seems to me that most of it is really coming on the import side, which I assume is importantly related to domestic demand and consumption. Looking at the annual data—I'm looking at page 24 in Part 1 of the Greenbook, which has the annual data over a string of years—export growth is actually slowing in terms of percentage growth year over year. So I guess the way that I would put it is, To what extent is the lower growth in imports really driven by lower aggregate consumption rather than a genuine improvement in the current account? That's one question.

Another question is really quite separate, and I think it will tie into our later go-round here. I don't have a good sense of the relative importance of your anecdotal information in modifying your outlook compared with the underlying data that you follow so thoroughly and so expertly. To what extent do you modify the views based on the data, the model, and your reading of the numbers by your anecdotal information, your business contacts?

MR. STOCKTON. So do you want me to start with that?

MR. SHEETS. Sure. That sounds good. [Laughter]

MR. STOCKTON. On the anecdotal side, as I think about the revisions that we've made to the forecast of this most recent period, by which we have taken down the level of GDP nearly  $\frac{3}{4}$  percentage point for our estimate of the effects of the financial disturbance, I don't know whether you'd call that based on anecdotal or on actual data. It felt pretty much like guesswork with a few

anecdotes at the time of the last meeting, when we had some measures of financial stress that were significant and we knew on the data side, in terms of the impairment to the mortgage markets, that something very significant was going on. The housing side was about half the adjustment that we made. So I guess I'd just say that a big chunk of that was probably data based, but some guesswork was involved in how much restraint on housing activity would come from the cutbacks in mortgage availability that were going to occur in the subprime market.

In terms of the consumer side last time, we really had very little to go on, except a hint that maybe consumer sentiment had weakened somewhat. Since then I think we have accumulated a little more evidence in favor of our hypothesis that possibly some restraint on spending will occur going forward. Consumer sentiment has remained low relative to what we think the other macro fundamentals would suggest. We think that there is a correlation between the residuals of explaining consumer sentiment and our consumption equation. So that correlation, in addition to the senior loan officer survey—again, I don't know whether you consider that anecdotal evidence or systematic data, but there's a very substantial and widespread uptick in the tightening of terms and standards for both business and household loans—gives us more confidence that what we thought were pretty sizable effects that we built into the forecast have some credible basis.

Now, there are still some touchy-feely kinds of things that we're looking at. For example, with the assistance of the Reserve Banks, we did the survey of our Beige Book contacts on capital spending. I can't say that we didn't make some adjustment to our E&S forecast on the basis of those anecdotes, but again, those anecdotes gave us a little more confidence that something may be happening on the capital spending side going forward. So I wish I could tell you that, yes, three-tenths of this is anecdotes and seven-tenths is data. There's a big gray area between the kinds of information that we gather versus the GDP data. If you ask how the GDP data alone influenced our

outlook, as I noted in my briefing, those have been pretty clearly to the upside, and we haven't yet seen any hard evidence in the actual spending data outside the housing sector that we're getting any restraint. So that remains a forecast based upon these other shreds of evidence that we think support some notion that there will be a weakening going forward.

MR. SHEETS. In response to your first question, I think the answer is that it's the improvement in the net export contribution in the current account that's being driven by both a strengthening of exports and a softening of imports. The net export contribution or the direct contribution of exports to GDP growth has risen roughly 25 basis points over the past couple of years—so about  $\frac{1}{4}$  percentage point. By the same token, the arithmetic negative drag from imports has been reduced about 40 basis points. I think it's strictly an arithmetic computational thing. Your observation that it's more imports than exports is absolutely right, comparing 2007 with where we were several years ago. But certainly for the third quarter and for the second half, exports have been extraordinarily strong, and imports have been softer than maybe they were a couple of years ago but not extraordinarily weak. So in the near term, it's more an export story. Then the other point is that certainly you're also correct that the softening of imports that we've seen over the past few years has been driven in large measure by the softening of U.S. domestic demand, and that's probably—I don't have an exact decomposition here—on the order of two-thirds of the softening in imports.

CHAIRMAN BERNANKE. Other questions? If not, we're ready for our economic go-round. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. I will talk a little about the District this time. It continues to perform well, with ongoing weakness in the housing sector offset by strength in agriculture and energy. As has been true for a while, construction activity remains mixed, with weakness in residential construction offset by continued strength in commercial construction. In

terms of residential construction, both the number of single-family permits and the value of residential construction contracts declined in September, and home inventories rose with slower home sales, as is happening elsewhere. However, District home prices measured by the OFHEO index edged up in the second quarter and remain stronger than in the nation as a whole. On the commercial side, after a robust spring, construction activity has slowed but has remained solid. Energy regions, such as Wyoming, report strong activity. But even in the non-energy regions, activity remains solid. Office vacancy rates were stable, and absorption rates declined. In addition, developers reported more-stringent credit standards, and they expected credit availability to remain tight.

Consumer spending softened in September. Mall traffic was flat, and retailers reported that sales were down slightly. In addition, auto dealers reported that sales fell further in September as high gasoline prices cut demand for our SUV sales and for vans. In other areas, though, activity appears to remain at least moderate. For example, travel and tourism remain healthy. In addition, manufacturing activity picked up slightly in October. Solid increases among producers of durable goods offset a weakening among producers of food, chemical, and other nondurable goods. Even so, purchasing managers remain optimistic about future activity, as most forward-looking indexes strengthened or held steady. Finally, we continue to see strength in agriculture and energy. District producers are selling a bumper crop at high prices as poor crop conditions in the rest of the world trimmed global inventories and boosted export demand. In addition, robust meat demand kept cattle and hog prices above breakeven levels. The sharp rise in farm income led to a surge in farm capital spending in the third quarter and is expected to rise further in the fourth quarter.

Turning to the national economy, my outlook for growth is basically unchanged from our last meeting. Generally speaking, economic indicators have been a bit stronger over the intermeeting period, as described here, but financial markets continue, obviously, to exhibit some stress. The senior loan officer survey suggested moderate tightening of credit conditions. That is consistent with our estimates of slower growth in the current quarter. As before, though, I remain more optimistic than the Greenbook about both the near-term outlook and the longer-run growth potential for the economy. Specifically, I think growth over the forecast period will average about  $2\frac{1}{2}$  percent. My forecast is based on maintaining the fed funds rate at its current level of  $4\frac{3}{4}$  percent through the middle of next year before reducing it to its more neutral level late next year or early 2009. With regard to trend growth, I continue to expect a decline in potential growth from about  $2\frac{3}{4}$  percent to  $2\frac{1}{2}$  percent by 2010.

Disappointing housing data have led me to mark down my near-term forecast for residential investment. I continue to expect that residential investment will decline through the first part of next year before turning up in the second half. Also, after strong growth in the first half of this year, nonresidential construction is likely, perhaps, to slow significantly over the next year and a half. Supporting growth in the near term will be moderate growth in consumer and government spending along with strength in exports driven by the lower dollar and robust foreign growth.

Turning to the risks to the outlook, I believe they remain on the downside as far as real output but have not worsened noticeably since our last meeting, especially with that action. I believe that construction, both residential and nonresidential, and slower consumer spending from higher energy prices constitute the main risks to the outlook. With regard to the inflation outlook, recent data on core inflation continue to be, as noted here, favorable. I expect core PCE

inflation to average about 1.8 percent over the forecast period—remember, assuming no change in the fed funds rate—but I also expect that overall PCE inflation next year will moderate as the effects of higher food and energy prices wear off. However, I do remain concerned about the upside risk to inflation as well. Greater dollar depreciation and higher energy and commodity prices, along with greater pass-through from all three, could push inflation higher for a period of time. In addition, I am also concerned about the implications of the gradual upcreep in the TIPS measures of expected inflation for the long-run path, and I am receiving more anecdotal information, in discussions with individuals in our region, about a change in expectations about inflation as they continue to deal with some rising prices in materials and other goods. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. There has been little change in the District economic conditions since our September meeting. Except for housing, activity is expanding at a modest pace, somewhat below trend. Our business contacts are cautious, generally expecting slow growth to continue over the next quarter, but they remain fairly optimistic for business conditions six to twelve months out. Payroll employment continues to expand at a slow pace in our three states, which partially reflects slow population growth, and so the unemployment rate remains slightly below that of the nation. Retail sales have generally held up, but there are divergent views among retailers regarding holiday sales. High-end stores expect a very strong finish to the year; lower-end merchants are more cautious. Housing construction and sales continue to decline, but the pace of that decline is in line with the expectations at our last meeting. The value of nonresidential building contracts has declined more sharply in our region than in the nation as a whole. Nevertheless, I would characterize nonresidential real estate



markets as firm. That office vacancy rates are declining and commercial rents are rising suggests a positive outlook for commercial construction going forward.

According to our business outlook survey, manufacturing activity in the District has been increasing at a modest pace for the past several months. The general index of economic activity moved down slightly, from 10.9 in September to 6.9. Shipments and new orders also weakened slightly. Staff analysis suggests that our manufacturing index, which precedes the release of national industrial production numbers, provides useful information in forecasting monthly manufacturing IP and total IP. That forecasting model is predicting a rise in both manufacturing IP and total IP in October. About two-thirds of the District manufacturers and service-sector firms we have polled said that recent changes in financial conditions have not prompted any change in their capital spending plans, and the other firms are about evenly split as expecting a slight decrease or a slight increase over the next six to twelve months compared with the past six to twelve months. However, in speaking with my business contacts, I do hear a sense of continuing caution among businesses in their capital spending plans. The manufacturers seem to be a bit stronger than the service firms, perhaps reflecting a more robust export market, which many of them are participating in. District bankers, in general, continue to express concern over housing and mortgage lending but see commercial and industrial lending as fairly stable and proceeding about as they had expected.

There has been little change in the District's inflation picture since our last meeting. Firms continue to report higher benefit costs, but other wage pressures have moderated. Our manufacturers reported having to pay higher prices for many inputs, particularly energy-related inputs and petroleum-based products as well as agricultural commodities. They have passed on

many of those increases in terms of higher prices to their consumers. While retailers report only modest price increases for many products, food prices are generally higher.

In summary, since our last meeting, there has been little change in the economic conditions in the District or in the outlook for the region. Overall, business activity in the region is advancing at a fairly modest pace, and most of our contacts expect that pace to continue for the next quarter or so. But in general, firms in the District remain optimistic about business six to twelve months from now.

Turning to the nation, the economy appears less vulnerable to me than it did at the time of our last meeting. Financial markets have improved somewhat, as Bill Dudley was telling us. Conditions are not back to normal yet in all segments of the market, but the markets that are still under stress are the same ones that were under stress last month. Subprime and jumbo mortgages and asset-backed commercial paper are the ones that still are struggling. Price discovery still plagues many of these markets, and I suspect it will take some time before the markets can sort things out and trading returns to normal. That does not mean that the ultimate agreed-upon market prices for some of these assets will bear any resemblance to what they looked like before August. Indeed, they probably won't, but that's not necessarily a bad sign or a cause for concern; it may even be a healthy development. We haven't seen disruption spread to other asset classes for the most part, and the level of stress in financial markets seems to have fallen even as volatility remains high. The spread of jumbo over conventional mortgage rates remains elevated, reflecting some concern, I think, about the risk that expensive homes may face greater price declines than other homes, but the premium is less than it was in September.

Both investment-grade and non-investment-grade corporate bond issues have increased. Financial institutions have begun to write off some of their investments and take the losses. This

has weighed heavily on equity markets, but I view the write-downs as a necessary part of the process toward stabilization in the markets. Earnings reports from nonfinancial firms have actually been pretty favorable. I'm not saying that we are out of the woods yet, but in my view the risks for a serious meltdown in financial markets have lessened somewhat since our last meeting.

The news on general economic activity has improved somewhat since our last meeting as well. Indeed, some of the data have come in better than expected. Employment was revised up, and retail sales data suggest that consumer spending remains resilient, despite the downturn in housing. Like the Greenbook, my outlook for the economy has changed little since our last meeting, when we acted preemptively and lowered rates to "forestall some of the potential adverse effects of financial market disruptions and the expected intensification of the housing correction on the broader economy." Housing investment and sales continue to decline but about as expected in our forecast. After all, the rapid reduction in subprime lending is exacerbating the decline in housing demand and thus home sales, contributing to the slower recovery of that sector. Other sectors of the economy have performed about as I expected, with little evidence as yet of any major spillovers from housing. Oil prices have moved higher than expected since our last meeting, as has been discussed, but it is unclear to me yet how permanent that increase will be or how much of a drag it might be on activity. The oil price rise is likely to show through to headline inflation in the coming months. Although core inflation measures have improved since the beginning of the year, the rise in energy prices has the potential to put upward pressure on core inflation. Thus, while inflation and inflationary expectations have been stable to date, I suspect that inflation risks are now more to the upside than they were in September.

The forecast is an important context for our policy, in my view. We have stressed in the past year that we are data driven and respond to the evolution of our forecast. In general, like the Greenbook, as I said, my forecast of the economy going forward is little changed from my September view. I see that growth returns to trend, which I estimate to be about 2.7—a little higher than the Greenbook—late in 2008 as the housing correction runs its course and the financial market turbulence unwinds. Core PCE inflation remains slightly below 2 percent next year and moderates toward my goal of 1½ percent by 2010. I built in a 25 basis point easing sometime in early 2008 to bring the funds rate back down to a more neutral level, and in my baseline forecast I assume a constant funds rate thereafter. That forecast, however, is contingent on inflation and inflationary expectations remaining well behaved. Having said that, I repeat my caution that inflationary pressures are somewhat elevated at this point, and we run the risk that inflationary expectations may become unhinged if the markets suspect that we have lessened our commitment to keep inflation contained. Thus, I don't rule out the possibility that we may have to reverse course and tighten policy sometime in 2008 or 2009 in order to achieve consistency between my target rate of inflation of 1½ and inflationary expectations. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. The Boston forecast is very close to that of the Greenbook. With the constant federal funds rate assumption, the economy is very close to full employment, and core inflation is close to 2 percent at the end of 2008. Such an outcome is consistent with what I would hope to achieve with appropriate monetary policy. However, while this is an expected path that seems quite reasonable, the distribution of risks around that outcome for growth remains skewed to the downside. Our forecast, like that of the

Greenbook, expects particularly weak residential investment. Problems in financing mortgages, expectations of falling housing prices, and more-severe financial stress for homebuilders are likely to weigh heavily over the next two quarters. In fact, our forecast for residential investment has become sufficiently bleak that there may actually be some upside risk to it. [Laughter]

Somewhat surprising to me has been the lack of spillover to the rest of the economy from the problems in residential investment. I remain concerned that falling housing prices will further sap consumer confidence and cause a pullback in consumption, though to date there is little evidence of a significant effect of the housing problems on consumer spending. Similarly, I would have expected the financing problems that have aggravated the housing situation to have caused a sharper reduction in investment in general and in nonresidential structures in particular. However, so far these remain risks rather than outcomes. Thus, while I am worried about the downside risks, I am reminded that forecasters have frequently overestimated the consequences of liquidity problems in the past.

On the financial side, there have definitely been improvements in market conditions, though markets remain fragile. Particularly worrisome has been the announcement of significant downgrades of tranches of CDOs and mortgage-backed securities with large exposure to the subprime mortgage market. Not only have the lower tranches experienced significant downgrades, but a number of the AAA and AA tranches have been downgraded to below investment grade. Some investors cannot retain below-investment-grade securities and are forced to sell these securities in an already depressed market. The number of the downgrades, the magnitude of the downgrades, and the piecemeal ratings announcements all are likely to call into further question the reliability of the ratings process. If many high-grade securities tied to mortgages are downgraded to below investment grade, some investors may conclude that

repricing of even high-graded tranches does not reflect a liquidity problem but rather a substantial reevaluation of credit risk. Thus, I am concerned that continued widespread downgrades may make recovery in the securitization market more difficult, particularly for nonconforming mortgages, with a consequent increase in the financing cost of these assets. I also remain concerned that the asset-backed commercial paper market remains fragile. While investors seem to be distinguishing between conduits whose structure or underlying assets are quite risky, my sense is that money managers are watching the market quite closely. I continue to hear concerns over the possibility that some money market funds will experience losses that will not be supported by their parents, resulting in increased investor concern with the safety of money market funds more generally.

On balance, the data both on the real economy and on financial markets have improved since our September meeting. That improvement makes it more likely that the economy will continue to recover gradually from the financial turmoil. However, both the real and the financial risks remain skewed to the downside.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. Like the global economy, the Eleventh District is slowing, but relative to the other Districts it remains very strong. Our retail sales improved in September. Nonresidential and commercial construction remains elevated. Service-sector job growth strengthened significantly in September, and our staff estimates that 18.2 percent of the jobs created in the country year to date were created in the State of Texas. I just wanted to mention that. [Laughter] Needless to say, wages are rising because of labor shortages, a decline in immigration, and the increase in minimum wage. I will stop with the Texas brag and now go on to the national economy.

I think President Rosengren just gave an excellent summary of the financial markets. I would add only the following—that with regard to credit markets, the hardening of the arteries or the blockage of the aorta or whatever cardiovascular analogy we want to choose to describe what happened is no longer as severe and life-threatening as it appeared to be in August. As mentioned by the staff, whether it is net bond issuance of investment-grade securities or C&I loans et cetera, the markets are moving toward pricing assets according to what they will sell for rather than what their hypothetical mathematical modeling value might posit. There was a startling statement in the *Financial Times* on Friday morning. Somebody, otherwise forgettable, said, “Corporate treasurers are no longer buying things they don’t understand.” [Laughter] Imagine that. Investors are coming home from lala land. To be sure, we’re not out of the woods quite yet, as President Plosser and President Rosengren mentioned. The situation remains real, but we’ve gone beyond suspended reality. If you will forgive me, you might say we have gone from the ridiculous to the subprime.

MR. LACKER. Let the transcript say “groan.” [Laughter]

MR. FISHER. By that I mean, by the way, that the subprime market is a focus of angst, which it should be, but the ridiculous practice of the suspension of reason in valuing all asset classes, if not over, is in remission. We have a long way to go before full recovery and must acknowledge that shocks regarding access might occur. I am confident, as I have said in previous meetings, that—just to be polite—some cow patties might show up in the punchbowls of some portfolios, perhaps especially in Europe and Asia. But I would submit, Mr. Chairman, that we are on our way back to markets priced by reason rather than by fantasy. So, while we must remain ready to act as needed, I think it is appropriate to focus our discussion today and tomorrow foursquare on the economy, and I want to turn to that now.

The wealth effect of the severe markdown in housing is as yet incalculable and worrisome. As the Greenbook states and my sounding with CEOs confirms, there are as yet no appreciable, let alone debilitating, signs of spillover into the rest of the economy. The economy has been weakened. You see it in the rails and trucking and retail. It has not shown signs of succumbing as much as one might have expected to the full-blown virus that is afflicting housing. As Dave mentioned, going back to July, banks in our District and everywhere else have reported tightening terms and standards on loans to businesses and households. The overall sentiment or mood of the country, as reported by the press and the surveys, is sour. Yet we haven't seen sharp increases in initial claims, low PMI (purchasing managers index) readings, or sharply falling durable goods orders. Households are still reasonably optimistic about their job prospects. Consumer spending continues to grow, albeit at a slower pace. The CEO of Disney started his discussion with me this time by saying, "I hate to be the bearer of good news," and went on to cite an internal survey they recently completed that shows that families plan to spend liberally on vacations, despite setbacks in presumed housing prices, as well as strong ad statistics for their broadcasting network.

There remain widespread reports of labor shortages, not just in our District but also elsewhere. The bottom line, Mr. Chairman, is that, there is clearly a fat left tail on growth—the economy is growing slower. But the economy is growing at a positive pace. Some might say that it has slowed to a sustainable pace. In part, this is due to infrastructure investment, spending on nondefense capital goods that is better than expected, decent if not robust E&S demand, fiscal stimulus, and strong export performance that we talked about earlier, assisted by superior demand growth abroad, facilitated by a progressively weaker dollar. I note that we meet the day



after the trade-weighted dollar celebrated a post-Bretton Woods low—not an easy thing for a strong dollar man to note.

Certainly, there is a risk that downward economic momentum will emerge. I worry about the plight of the big, populous states like Florida and California under the crush of the housing implosion. I take note of the reports from UPS, the rails, and the truckers as to the deceleration in year-over-year trends in pre-holiday shipments. I realize that Wal-Mart same-store growth has slowed, that mall traffic is down, and so on. But not a single one of my thirty-five CEO interlocutors, except for the homebuilders, felt that the economy was at risk of falling off the table. Fluor and the other big builders—or logistics organizers, as I like to call them—report a booming domestic infrastructure business, especially in the petrochemical sector. The technology folks, as manifested by the earnings reports of Microsoft, Apple, and others, continue to find that demand is brisk. Cisco's CEO confirms that business with all but the financial institutions "has begun to flow again" after being laid low by the uncertainty of August. The airlines report volume conditions as "less bad" than they were in the third quarter. UPS's CFO, about to become CEO, who serves on President Lockhart's board, is concerned, like the rails, about consumer holiday demand, and notes that trans-Pacific shipments into the United States have slowed. Yet when he digs deep into the data, he will tell you that the tech side looks good. So the net effect is that, while nowhere near robust, "domestically, conditions have not materially worsened."

Except for housing and Bill's two law firms, we are not hearing of significant lagging of receivables or collectibles. Many of my interlocutors, however, worry about prices, as do our staff members in Dallas. We differ significantly, Mr. Chairman, from the central assumption of the Greenbook in our views on headline inflation looking forward. I noticed you cocking an eye

in my direction, Brian, when you were talking about the outliers. The Greenbook has a 3 percent number for PCE inflation for this year, followed by a deceleration, to a pace of 1.8 percent in 2008 and 1.7 in 2009. We in Dallas are not as confident that we will continue to experience a disinflation of the momentum of the PCE. Partly this stems from concerns expressed anecdotally by big importers like Wal-Mart, who report stiffening Chinese prices, by the CEO of JCPenney, who is planning for cost increases of goods imported from China on the order of 3 to 4 percent next year, and by the users of pulp and recycled waste paper that are set to announce a 5 percent increase in essential paper products effective in February, having just announced a double-digit increase not too long ago.

Our concern at the Dallas Fed stems from two more-pervasive sources than that anecdotal evidence I just cited, and those are food and energy, for which we anticipate a more pernicious pass-through effect from recent rapid price increases of underlying commodities. The concern we have for food is encapsulated in the eye-popping chart on page II-30 of Part 2 of the Greenbook. You have to have a hawk's eye to see this chart from that end of the table, but it shows an incredible divergence between food prices and the core PCE. Now this pattern has a historical precedent. A spread of this magnitude between food prices and core indexes occurred on several occasions between 1951 and 1980. In 1973, the gap was 20 percent. In 1974, the gap was closed when the CPI rose up accordingly. But we have not seen a gap of this nature in over a quarter-century. Wholesale food prices are up 6.3 percent for the year to date. Through September, the CPI for food is up 5.7 percent. As mentioned by one of the previous interlocutors, milk and green grocery prices are rising at double-digit paces. This goes beyond ethanol, Mr. Chairman, as a driver of shifts in crop rotation and production. It is occurring against a ramping up of the caloric intake of a few billion new eaters in China, India, and

elsewhere. This is hardly encouraging, and it injects a modicum of doubt in predicting a significant decline in PCE inflation.

We spoke about energy price dynamics earlier. They further cloud the picture. If you talk to Exxon or Independence, they will tell you that there is no problem in finding oil, in refining it, or in delivering the final product. They will, however, note that there are two key impulses at work. First, there is no evident slowdown in demand growth according to them—that is, domestically—and the appetite in the BRICs (Brazil, Russia, India, and China) and in the developing countries was described as voracious. An enormous amount of infrastructure in chemical plant capacity is being constructed everywhere, from the Gulf Coast of the United States to the Middle East to China and Singapore, in order to be nearer to either feedstock or growing final demand. Any analysis of the income elasticity of demand for oil in low but rising income nations like China and India points to demand for oil that will grow even faster than their slightly slower but still rapidly growing income levels. Second, price pressures on crude at the margin are compounded by noncommercial activity, which we did not talk about earlier. Noncommercial contracts, the busywork of what are called “city refiners” in the industry—that is, the city of London and the financial exchanges—have of late been running at triple their traditional volume according to Exxon’s CEO, driving oil through \$90. Thus far, gasoline and distillates, which is where the pass-through rubber hits the consumer price road, have been tame in response. Bill discussed the low crack spread, for example. Yet our models at the Dallas Fed for retail gasoline prices envision increases above \$3 a gallon next year if crude stays above \$85, which we consider a reasonable probability. Similarly, price pressures for distillates are increasingly probable. Finally, while currently high inventories continue, it is noteworthy that natural gas prices have reversed their summer slide downward to \$5.50 per million Btu and are

now quoted at \$7 at the Henry Hub. All this gives me, Mr. Chairman, a sense of discomfort, like that expressed by President Hoenig and President Plosser, on the headline inflation front and is a reminder that the balance of risk is not necessarily skewed only toward slower growth. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Yes, sir, Vice Chairman.

VICE CHAIRMAN GEITHNER. Are we permitted to question?

CHAIRMAN BERNANKE. Yes.

VICE CHAIRMAN GEITHNER. Richard, you described vividly the bunch of forces working on headline inflation. But since you identified yourself as a negative outlier on the inflation forecast, it seems to me your headline forecast is still for significant moderation in headline inflation in '08. Am I wrong in that? At least I infer from this that you're not showing an acceleration in core PCE inflation.

MR. FISHER. No. But I am talking about a spread being maintained between the two, and I am concerned about it, depending on where we are going to go in terms of our communication exercise, which we will talk about tomorrow. But we don't show as much relief on PCE inflation as the Greenbook indicates nor as the central tendency indicates, and I wanted to explain why.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. Over the past week or so, we have been following the devastating fires in Southern California. They have burned over 500,000 acres, destroyed nearly 2,000 homes, and inflicted seven deaths and sixty injuries. These were large fires, even by California standards, but they were by no means the largest in recent memory; and, of course, the loss of life and economic costs pale compared with Katrina. While the fires have

seriously affected the lives of many individuals, they do not seem likely to show up in the macroeconomic data.

Turning to the national economy, developments since we met six years—six weeks ago—actually, it seems like just two weeks ago—[laughter] generally have been favorable and the risks to the outlook for growth have eased somewhat. But I think it is too early to say that we are out of the woods. The inflation news has continued to be favorable, but some upside risks have become more prominent. With respect to economic activity, we have raised our forecast for growth in both the third and the fourth quarters in response to incoming data, even though the pace of deterioration in the housing sector has been more severe than we expected and the problems associated with housing finance seem far from resolution. We agree with Greenbook that residential investment is likely to continue its severe contraction for at least a few more quarters. We also agree with Greenbook that the rest of the economy has held up reasonably well, at least so far. Exports have been strong, and while business fixed investment seems to be slowing, it should still make a robust contribution to growth in the second half of this year.

With respect to consumer spending, most aggregate data suggest only a modest deceleration so far. Such readings help to allay our concerns about potential spillovers from housing to consumption, but they don't completely assuage them. Survey measures of consumer confidence are down sharply since the financial turmoil began, and most indexes of house prices show outright declines. Given the current state of the housing and mortgage markets, bigger declines going forward are a distinct possibility. Indeed, the Case-Shiller futures data for house prices point to larger declines in the months ahead. A sharp drop in house prices would likely crimp consumer spending over time through wealth and collateral effects. Some of my directors and other contacts are also raising warning flags about consumer demand. For example, the

CEO of a large well-known high-end retailer said that the company's sales are softening and that the company is having to work diligently to control inventories. In his view, the consumer has pulled back. The CEO of a Southern California bank observed a number of his clients talking about a drop in discretionary consumer purchases. The bottom line is that consumption spending seems to be all right for the time being, but there is a real risk that households may cut back on spending more than expected in response to higher oil prices, a slower economy, and economic uncertainty.

I agree with President Rosengren's assessment of financial markets. Strains appear to have eased a bit on balance since our September meeting, with interbank lending markets showing some improvement and spreads on asset-backed commercial paper declining. But structured credits related to mortgages remain quite troublesome, and liquidity conditions and Treasury bill markets are still at times strained. My impression is that, despite having moved in a positive direction over the past six weeks, these markets remain vulnerable to shocks, and so the economy remains at risk from further financial disruptions. Both survey evidence and anecdotal evidence have confirmed that banks are tightening lending standards across the board. Tighter terms and conditions are being applied to a range of business lending, including commercial real estate, and on most household lending from prime and nonprime mortgages to auto and home equity loans.

The main financial variables that are commonly included in formal macroeconomic models appear to have changed since the onset of the financial shock—say, in late June—in ways that should have roughly offsetting effects. Oil prices are markedly higher, which should restrain consumer spending, and the stock market is roughly unchanged since June in spite of the financial turmoil. A weaker dollar should have a positive influence on growth. Mortgage rates

on jumbo loans and the rates facing the riskiest corporate borrowers are higher, but many private borrowing rates are down because of the decline in Treasury yields. Of course, the current levels of Treasury yields, as well as the stock market and dollar, reflect at least in part the market's expectation that the Committee will ease the stance of monetary policy at this meeting.

Underlying our forecast is the policy assumption that the Committee will cut the funds rate another 25 basis points at this meeting. In assessing the appropriate path of the stance of policy, I took a number of considerations into account. First, core consumer inflation currently is at a level that I consider consistent with price stability. Second, unemployment is very near my best estimate of the full employment rate. In the context of a Taylor-type rule, these considerations imply that the real funds rate should be near its neutral level. In fact, any version of the Taylor rule you prefer, with whatever rates you want to put on inflation versus the gap, will give you the same recommendation because all the terms are zero and drop out, except for one—the equilibrium real rate. Of course, we cannot know the level of the real equilibrium rate with certainty. Defined in terms of the PCE price index, our best estimate is in the range of 2 to 2½ percent, which is well below the current real rate of about 3 percent.

I would like to highlight two additional points here. First, the actual real rate has been boosted over the past six months or so by declines in short-term inflation expectations, whether one measures them by lagged inflation, by surveys of expected inflation over the next year or so, or by forecasts of inflation including the Greenbook forecast. Second, one important aspect of the financial turmoil is that it probably represents in part a movement toward a more reasonable pricing of risk, as seen in the rise in risk spreads. This development tends to push the equilibrium real funds rate down toward the lower portion of the range I just cited.

The bottom line is that in my view, even without the contractionary effects of recent financial developments, an appropriate stance of monetary policy would involve further declines in the fed funds rate. I have assumed that the funds rate drops to 4½ percent by the end of this year and to 4¼ by the end of next year. My assumed path ends in the same place and embodies the same medium-term assumption concerning neutral as FRB/US, on which the extended Greenbook forecast relies. The only difference concerns timing. We assume a more rapid path to the long run than the Greenbook does. Our forecast shows real GDP growth gradually picking up to around 2½ percent, our estimate of potential, by the end of next year. However, given that the financial shock is not yet resolved, I think the downside risks to this forecast predominate.

With regard to inflation, I expect core PCE inflation to remain around 1¾ percent over the next several years. The probable appearance of a small amount of labor market slack is likely to help hold down inflation. In addition, I expect that, with inflation remaining below 2 percent, inflation expectations will edge down as well, reinforcing our success. I hope that this result will be aided by the release of our extended forecasts and the greater awareness of where we would like to see inflation settle down. I see the risk to my inflation forecast as moderate and mainly to the upside in view of recent increases in oil and food prices, declines in the dollar, and a slower rate of structural productivity growth.

So, in summary, I think the most likely outcome is that the economy will move forward toward a soft landing. I see downside risks to economic activity and some upside risks to inflation. But in view of continuing questions about the effects of the financial market shock, I am more concerned about the activity side of things right now.

CHAIRMAN BERNANKE. Thank you. President Pianalto.



MS. PIANALTO. Thank you, Mr. Chairman. Like many others around the table, my report to this Committee in September indicated a sharp deterioration in business confidence. My business contacts were concerned about what may happen. During the intermeeting period I heard less about what may happen and more about what is actually happening. My contacts who are linked to residential real estate have seen a further and, in some cases, sharp drop-off in business activity. My banking supervision and regulation staff told me just a few days ago that they're now seeing a sudden and sizable percentage increase in nonperforming loans at a number of large banking companies in my District. To be sure, nonperforming loans had been at extremely low levels, and most of the sharp rise can be traced to mortgage and construction development lending. But I'm now beginning to hear reports that bankers are experiencing some loan performance problems outside their real estate portfolio. The CEO of a large, major bank in my District has also reported difficulty in securitizing the student loans that they're making, forcing them to keep those loans on their books and to make adjustments elsewhere in their balance sheets. To what extent these banking conditions are affecting overall bank lending is not obvious, but clearly there has been some disruption to the channels of intermediation, and I am now beginning to hear reports of some spillover to other sectors of the economy. A growing number of retailers tell me that they have seen a noticeable decline in spending since mid-September in items ranging from autos to apparel.

While my reports from the business community reflect a falloff in business conditions from what we submitted to the Beige Book just a few weeks ago, they don't necessarily indicate a significant deviation from the slowdown that was already built into the economic projections that I submitted in September. In preparing for this meeting, I found it difficult to judge whether the reports of weakness that I am hearing represent an unfolding of the September projection or additional deterioration in the outlook. In the end, I have only minor differences with the

Greenbook projection in the near term and, like the Greenbook, made only minor revisions to my forecast. I see economic activity a bit softer than the Greenbook for the remainder of 2007, but I project slightly better growth in 2008. Like the Greenbook, I have assumed an unchanged path for the fed funds rate over the forecast period. The recent rise in oil prices has caused me to push up my near-term PCE projection, but inflation expectation projections remain anchored around 2 percent. I see a small upside risk to the near-term inflation projection as a result of the continuing dollar depreciation; but on the whole, I continue to judge our inflation risks as reasonably balanced.

I would like to conclude by echoing the sentiments of others around the table. Considerable strains in the financial sector remain, and further turmoil in markets is a distinct possibility. I think that, in this environment, households and businesses can easily be spooked—excuse the Halloween pun—and I don't think it would take much additional tightness in credit markets to push my fragile near-term growth outlook even lower. So this concern continues to be the predominant risk to my outlook. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Conditions in the Fifth District's housing sector continue to deteriorate. Sales have weakened further across most areas, and starts have pulled back sharply. Inventories are rising in part, we hear, because some residential investors have run short on patience and are listing their properties. The housing correction has been particularly acute on the outer edges of the Washington, D.C., metro area, and contacts from the area anticipate that additional slowing in more-central markets is likely. In addition, reports of home-price reductions are becoming more common around my District. Until recently the weakness looked to be mostly contained in housing, but spillovers into other sectors are beginning to appear. For

example, our survey of the Fifth District manufacturing sector—which, by the way, is larger than the Philadelphia and New York manufacturing sectors combined—[laughter]

CHAIRMAN BERNANKE. But not Texas.

MR. FISHER. Or California.

MR. LACKER. —and we don't appear in Part 2 of the Greenbook—posted notably weaker readings for October. Drilling down into the details, much of the softness can be traced to housing.

MR. PLOSSER. We can't help it if you have no predictive content. [Laughter]

CHAIRMAN BERNANKE. The Chair is calling for order.

MR. LACKER. Conditioning on the Philadelphia index, we actually have marginal predictive value for the national ISMs. But I continue. A modest housing spillover into business investment plans seems to be unfolding as well. In the recent Board-commissioned survey of capital investment plans, our District was among those in which more businesses plan to trim rather than boost spending in the months ahead. Again, a more detailed look reveals that most firms planning reductions have ties to housing. Reports on retail sales in the District remain soft, with sales of automobiles and building materials notably weak. In addition, an executive from a major transportation firm headquartered in the District told us that freight volumes, both rail and trucking, are now at the lowest level since the 2001 recession. Although in a number of District markets commercial real estate activity remains healthy, we are hearing scattered reports of commercial construction projects being shelved. One director from D.C. said that commercial development there “doesn't have the pulse it had six weeks ago.” The turmoil in financial markets has not appreciably constrained business lending in our District, however. Contacts generally describe credit as readily available to creditworthy borrowers, but some say spreads have widened a bit. On

the price front, our monthly measures suggest some moderation in growth despite ongoing complaints of higher input costs.

At our last meeting, I was more optimistic than the Greenbook on the national economy. A significant part of the difference was related to housing, where I saw greater probability of the drag receding sooner. Longer term, I had a somewhat higher estimate of trend productivity growth, which supported a somewhat stronger outlook for household consumption. The main shift in my perspective since the last meeting is that I am now at least as pessimistic as the Greenbook about prospects for housing bottoming out anytime soon. The 10 percent fall in housing starts in September was certainly eye catching, and it indicates that the weak summer housing market tailed off further toward the end. In our District, and this seems to be true elsewhere as well, the housing downturn appears to have spread into many formerly unaffected markets. It is hard for me to believe that any discernible stabilization is likely before the spring, when the seasonal pickup in housing activity typically takes place. Even then a prolonged period of depressed activity seems more likely than any noticeable bounceback. Other recent news suggests a bit more demand-side fallout from the housing market than I had been expecting. Manufacturing production was sluggish in August and September, and durable goods orders have shown only modest growth, especially outside the aircraft industry. I mentioned a minute ago that our survey of the Fifth District manufacturing sector—which, by the way, is larger than the Philadelphia and New York manufacturing sector—[laughter] is showing a significant slowdown for October, particularly in housing-related industries.

Consumer spending has been a source of stability during this housing correction, and I expect that to remain true over the forecast period. I think household spending will generally expand in line with disposable income, but even though consumption advanced broadly in the third

quarter, it now seems we're in for a bit of a slowdown this quarter. In that regard, I'm feeling sympathy for what President Yellen said. So I'm less sanguine overall about the near-term outlook for growth at this meeting, although that may just represent catching up on my part to the Greenbook's past level of gloominess.

Having said all that, I do believe that the effects of this summer's financial market adjustments are likely to be limited; and out beyond the middle of the next year, I'm, again, more optimistic than the Greenbook and for the usual reasons. I think that productivity growth and, thus, real income growth will be somewhat higher than in the Greenbook forecast, and my outlook for the personal saving rate is centered on its current value rather than a steady increase.

Inflation appears to have ticked up a bit in September, at least according to the CPI. Still, year-over-year core PCE inflation remained reasonably contained, and I've been struck by the extent to which TIPS inflation compensation has held relatively steady in recent months, especially given our easing move last month and the run-up in oil prices. While I would like to see inflation come down further, I'm somewhat more comfortable about inflation than I was at the beginning of the year. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. As I have noted in the past, the industrial mix in the Sixth District looks a lot like the country as a whole. The regional data and anecdotal information show that, although the Sixth District economy is still expanding, the pace is marginally weaker than it was in September. In earlier meetings I commented on the severity of the housing situation in the District. There is no improvement in sight for the housing market, and there are signs that the sharp decline in residential construction is spilling over into nonresidential real estate segments, such as shopping center development. Employment growth is softening as well.

Although the largest negative effects are in construction-related sectors, the slowdown in job growth appears to be fairly broad based.

The broad contour of our national forecast is similar to the Greenbook baseline. Like the Greenbook, our forecast includes a slowing in business investment. Based on our survey of District business contacts, it appears that the low levels of expected capital expenditure are due mainly to pessimism about the pace of economic activity rather than restrictive credit conditions per se. Specifically, financial market turbulence does not appear to have directly affected economic activity, but it has created a greater uncertainty about the outlook for the economy. As a consequence, the majority of my directors and business contacts are reporting very little in the way of plans to increase capital expenditures in the coming year. Where business investment is discretionary, most respondents report a wait-and-see posture.

More positively, the weaker dollar does appear to be having a positive effect on exports from the region. For the year to date, the dollar value of exports through the Sixth District ports was up 35 percent through August, whereas import growth was only 21 percent. Not coincidentally, the majority of businesses that indicated they were increasing capital expenditures over the coming months were exporters.

In the run-up to this FOMC meeting, I again made calls to a few financial market participants, and they reflected a range of institutional and market perspectives. A synthesis of this opinion is consistent with the views that were expressed earlier by Bill Dudley and others. There's a widespread view that persistent volatility in credit markets is bound to negatively affect the general economy. Credit market conditions have improved somewhat, but stability may be a long way off. A second wave of volatility may accompany incoming details regarding mortgage delinquencies caused by rate resets in 2008, and there's a suspicion that third-quarter writedowns

may be followed by substantial further losses recognized at year-end. Also, as referenced in the Bluebook, there is skepticism about the M-LEC (master liquidity enhancement conduit) proposal from several angles.

In summary, our soundings of the economy, informed by formal modeling work, point to a continued slowing of the economy that will likely persist well into next year. Anecdotally, credit constraints outside the housing sector do not appear to be a major factor at this stage. But uncertainty created by financial market turbulence does seem to be acting as a constraint, and I believe that the heightened uncertainty regarding the economic outlook for 2008 warrants consideration of insurance against this downside risk.

With respect to the outlook for inflation, I agree with the view expressed by others that recent developments in energy prices, if they persist, make it likely that we are about to enter another period in which headline numbers substantially exceed the trends suggested by core measures. Because of this, I feel it's appropriate to characterize inflation risk as having increased. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. The Seventh District economy appears to be expanding at a moderate rate, similar to what I reported at our last meeting. As we talked with business contacts, we heard mixed reviews regarding activity across different sectors of the economy. On the downside, everyone in the construction industry, from builders to suppliers, had grim assessments, and our contacts with the Detroit Three characterize the vehicle market as mediocre. Another negative is on the labor front. Our contact at Manpower reported that demand for temporary workers was down a lot. He said that the current market felt almost as it did in 2001. Kelly's assessment was not quite so negative, although they did say that some indicators were

flashing yellow. Of course, the BLS has been showing declines in temp help employment since early 2006, and most other indicators point to a healthy labor market. Indeed, we continue to hear about firms trying to cope with shortages of skilled workers. For instance, a couple of heavy-equipment manufacturers based in Illinois said that they were recruiting engineers from the Detroit area. That was encouraging. There were other upbeat reports on activity. United Airlines said that all their markets were quite good, apparently better than President Fisher was reporting earlier. They noted the bookings for business travel, which can be an indicator of business's more general willingness to spend, remained strong in October and November. International bookings also were extremely good. We heard numerous reports of strong export demand—for example, for machine tool manufacturers and heavy-equipment producers. With regard to the financial situation, I continue to hear that there is a disconnect between Wall Street and Main Street. Importantly, except for construction, our contacts do not see nonfinancial firms being constrained by a lack of access to credit or by the pricing of credit.

Turning to the macroeconomy, the news on economic activity that we've received over the past six weeks has been better than the downside scenario that we feared. Indeed, it has been better than what we had assumed in our baseline forecast in September. Like the Greenbook, we have raised our outlook for growth in the second half of 2007 about ½ percentage point. Residential investment does look a bit worse than we thought, but consumption came in a good deal stronger than we had expected. Also, the incoming news about labor markets, including the revisions to employment in August, points to continued support to household spending from growth in jobs and income. Unlike the Greenbook, we marked up the outlook for activity a bit in 2008 and 2009. Our current projection sees growth recovering to a little above potential in the second half of next year and in 2009.



With regard to inflation, the incoming price data have been positive, and we have revised down our forecast for inflation a bit, to about 1¾ percent in 2008 and 2009. I think the risks to this forecast are two-sided. Some of our statistical models translate the incoming data into quite low forecasts for inflation in 2009 and 2010 if you take them at face value. But higher costs for energy and other materials, the weaker dollar, and potential pressures from resource utilization still pose some risk that inflation will come in higher than we currently are forecasting. For me, the positive inflation developments are an important ingredient allowing us to focus on risk management. Since risk-management considerations have played a key role in our policy decisions, it is important to think about how the risks to the forecast have changed since September. Last time and today, Dave Stockton cited several downside risks to watch for: an intensified fallout from the problems in mortgage finance onto housing demand; a substantial drop in consumer sentiment; and a spillover from financial market disruptions to business spending. These high-cost scenarios are possible, but I think their likelihood is smaller than they were in September. We have been pessimistic on housing for a while, and for once, despite Dave Stockton's warning, I am encouraged that the Greenbook's forecast for 2008 has not been marked down materially. It is a small comfort, but just a bit. The economy outside of housing seems to have entered the fourth quarter with more momentum than we had thought it would. Importantly, consumption growth has been solid even though there has been another downtick in sentiment.

On the financial front, the Greenbook points to the special Beige Book capital spending questions and to the senior loan officer survey as signals that we could expect more spillovers to nonfinancial activity. Tighter standards for C&I loans are definitely news, but they are hardly surprising. The real news will be next quarter. Looking at previous surveys, we had one bad quarter in 1998, and then it came down, and then the later tightening was part of the increase in the

fed funds rate. So I think that the next quarter will be very informative and important. In assessing how risks have changed, these surveys need to be balanced against the improvements we have seen in credit markets. While I continue to be concerned about collateral damage from the credit markets to real activity, I still think the problems in financial markets are likely to remain largely walled off from the nonfinancial economy. So on balance, the economic outlook has improved, and the risks of financial contagion have diminished somewhat since September, although they haven't disappeared. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. There really have not been any significant changes in economic conditions or trends in the District. Moderate expansion is continuing. The special survey we did on financial conditions and whether the changes there had affected capital spending plans suggested that plans, at least for firms in our District, were largely unaffected. Contacts with insight into the shipping industry do report that exports are very strong, stronger than at least they had anticipated. That, of course, is consistent with what we have been seeing in some of the aggregate data.

As far as the national economy is concerned, I agree with the Greenbook's assessment of the incoming information that we received since the last Committee meeting. I won't rehash it here, except to say that the surprises have been positive, a bit on the upside, and I think we still—at least at the aggregate level—haven't seen generalized spillovers from the contraction in housing activity or prices on overall economic activity. I also agree with the Greenbook's assessment of the outlook for the economy for the next two or three quarters. I think growth is likely to be subdued as a consequence of the changes in financial conditions that we've seen. As far as prices are concerned,

core inflation seems to me to be relatively well contained at least on a year-over-year basis, and I expect that performance to be maintained as long as we pursue appropriate policy.

Looking at the overall economic outlook beyond the next two or three quarters, I think there is a reasonable chance, given recent developments and recent actions, that by the middle of next year, say, we'll be looking at real economic growth of something close to what the economy has averaged over the past six years—that is, the period 2002 through 2007. This is a bit more favorable, a bit higher, than the Greenbook outlook, and as best I can judge, the Greenbook is more conservative than I am about the nonconsumption, nonresidential investment components of aggregate demand. Put another way, those components add a bit less to aggregate demand in the Greenbook than I would expect. But my real point is that I don't think it is a great stretch to see pretty respectable growth by the middle of next year. My reading of the projections package that was briefly discussed earlier suggests to me that at least some have the same view. Of course, that improvement could occur even sooner given the uncertainty associated with forecasting short-term perturbations in the economy. Thank you.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Thank you, Mr. Chairman. I want to concentrate on the outlook for the nonhousing part. I think the housing sector is obviously in miserable condition, and the issue as to where that's going to go really depends on how much of it spreads to other parts of the economy. Now, I have a contact with a large software firm, and the headline there is that things are going great—in fact, going gangbusters, I would say. Computer hardware sales nationally are running at 14 to 16 percent above last year, about 3 percentage points above expectation. Business IT growth is around 12 percent. Export sales are good. Server business is good. Computer gaming software is strong. Just overall a very bullish outlook there. Capital expenditures at this company are up

about 35 percent this fiscal year over last fiscal year and are expected to be up another 15 percent in fiscal 2009. So the outlook is uniformly very, very strong. The company says it is behind in hiring and has lots of unfilled positions partly as a consequence of turnover.

Now, all the other contacts were pretty downbeat. UPS is expecting a peak season that is milder than in the previous years; my contact believes that the economy is not going into a negative but is clearly slowing down. The company is leasing eleven fewer aircraft this year. To meet the peak, they always lease extra planes for shipping. They are probably holding about steady on capital outlays. My contact at FedEx says that the outlook is very soft, not much buildup toward the holiday peak. The retailers that they talked to are anticipating a softer season, not an absolute decline, but slow growth. International business remains very strong. This company is reducing capital expenditures by 10 percent from its previous expectation. My contact in a major company in the trucking industry says that we are in a recession, the worst he has seen in twenty to forty years. The company is reducing its fleet size by 10 percent, is cutting capital spending quite substantially, and has no good news. A contact with a major money center bank said that the bank's analysis of credit card usage indicates that sales have been flat in some areas and are declining in others. Credit card usage for department store and catalogue sales has been declining. In an e-mail I received after that conversation, my contact painted a weaker picture than had been discussed the previous day. I think that there are other comments around the table suggesting that the anecdotal reports are a bit on the weak side.

Now, to me there is a puzzle in the market's assessment of the outcome of this meeting. The market has essentially bid in a probability of 1.0 of either a 25 or a 50 basis point cut. If I were simply following the flow of news, the general flow of news putting housing aside has been okay, maybe a little stronger than expected, and following this fed funds futures market for a long time, it

does respond to the current information. The flow of data clearly moves that market, and if that were all that were driving the market, I guess I would have anticipated a 50-50 split between no change in the fed funds target and down 25 basis points. So why has the market bid in such a high probability of a cut at this time? I'll offer a hypothesis, which is that a number of people who are players in this market, like my contact at a large bank, are looking at news and saying that the proprietary inside information they have on what's going on leads them to believe that the overall economy has a soft tone to it that is not yet showing up in the data that we follow. I'm throwing out that hypothesis. I don't know what other hypothesis to offer, but it does seem to be a reasonable one. Thank you.

CHAIRMAN BERNANKE. Thank you. We have been extraordinarily efficient today. Why don't we take a coffee break and come back at 4:30?

[Coffee break]

CHAIRMAN BERNANKE. Let's reconvene. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. I just want to start by saying in defense of the Empire State that there is no way—the only way that Richmond could be bigger than New York and Philadelphia is if you don't count the substantial business we have in the manufacturing of financial products.

MR. KOHN. It's a lot smaller business than it used to be. [Laughter]

VICE CHAIRMAN GEITHNER. As the Chairman said at the Economic Club of New York, it is likely to emerge stronger. I think the outlook looks about the way it did in September. Just a few quick points. Financial market conditions are substantially better than during the peak of the panic in mid-August; but the improvement, as many of you said, is still quite limited and

uneven. Sentiment is still quite fragile, and I think we still seem likely to face a protracted period of adjustment ahead as the markets work through the substantial array of challenges remaining.

Growth in the United States and in the world economy in my view seems likely to slow—more here, of course, than elsewhere. Here, even though the nonhousing, non-auto parts of the U.S. economy don't yet show significant evidence of a considerable slowdown of actual or expected demand, I think that still seems likely. In our central scenario, though, housing construction weakens further. Housing demand slows further because of the tightening of credit conditions. Prices fall further. Consumer spending slows a bit, and businesses react by scaling back growth in hiring and investment, and this produces several quarters of growth modestly below trend. I think that growth outside the United States is likely to slow a bit. It will slow toward potential, if not all the way to potential, in those economies that have been growing above potential. Although the world is larger in relative terms and somewhat less vulnerable to a U.S. slowdown than it once was, it seems to me very unlikely that domestic demand in the rest of the world will accelerate as domestic demand slows in the United States. So the risks to this outlook for U.S. growth still seem to lie to the downside. The magnitude of the downside risks may be slightly less than in September, but they remain substantial. I think the main source of this downside risk to growth is the interaction between expectations of recession probability and the credit market dynamics. Each feeds the other. As the outlook for housing deteriorates and the recession probability stays elevated, financial institutions and investors stay cautious. That caution, in turn, slows the pace of recovery in markets—in asset-backed, securitization, and structured-credit markets—and in credit growth more broadly. As expectations adjust to anticipate a longer, more-substantial period of impairment in markets, then recession probability at least potentially increases.

I think that the underlying inflation numbers and the measures we use to capture underlying inflation do not suggest any meaningful acceleration in underlying inflation, and we still expect the core PCE to run at a rate below 2 percent over the forecast period. In some ways, though, the inflation outlook now feels a bit worse. It feels worse because of the modest rise in breakevens that we saw following our last meeting and because of sentiment in markets around gold, commodity and energy prices, and the dollar. The fact that breakevens at long horizons have risen or failed to fall as monetary policy expectations have shifted down is not the most comforting pattern out there. So I think we need to be very careful not to encourage any sense in markets that we're indifferent to those potential risks. Having said that, I think the risks to that inflation forecast are roughly balanced.

The range of tools we have for measuring equilibrium combined with what you see in financial market expectations suggests that monetary policy, to assess the real short-term interest rate, is at or above most estimates of neutral and, therefore, is still exerting some modest restraint on growth. The expectations now built into markets imply too much easing over the next eighteen months, more than I think we're likely to have to do. But I think the appropriate path of monetary policy lies under the Greenbook's assumption. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. In broad outline, the situation is evolving as we anticipated in our last meeting. Spending outside of housing has been well maintained. The housing market is very weak. Financial markets have been returning more toward normal functioning, banks have tightened credit terms and standards, and core inflation has remained low. I think it is the nuances around each of these that complicate our decision at this meeting.

As Dave Stockton and others pointed out, spending outside housing has been a bit stronger than expected. Paths of consumption and investment, along with employment, seem to be moderating going into the fourth quarter, but gradually. Importantly, the data for September haven't been especially weak, and these could have potentially been affected by the financial tightening, increased uncertainty, and reduced consumer confidence that followed the events of August. With growth in the third quarter likely to be at or above 3 percent and no material change in the output gap for several quarters now, it does appear that the real funds rate of 3 percent plus that persisted since mid-2006, while quite high relative to historical averages, was not far from the equilibrium real rate at that time, given the low level of long-term rates, the ready availability of credit at historically low spreads, and the high level of wealth relative to income through this period. It seems somewhere between difficult and impossible to calibrate the effects on aggregate demand of the rise in long-term rates last spring, the tightening of credit conditions of the past few months, and the expected decline in housing prices. The staff has judged 50 basis points of easing—we did that at the last meeting—to be enough to keep the economy near its potential in the context of the relatively solid incoming data. That doesn't seem unreasonable, though it does leave the fed funds rate at the higher end of its historical range.

Nonetheless, I see a couple of reasons for important downside risks to such a growth forecast. First, though the housing market was roughly in line with staff forecasts, builders have made only a little progress in reducing inventory overhangs. Moreover, reports suggest that downward price pressures are increasing—for example, the constant quality new home index declined in the past two quarters. Market expectations for the Case-Shiller index revised down, suggesting that the drop in house prices could be steeper than the moderate drop assumed in the staff forecast. Substantial decreases in house prices would at some point revive the demand for



housing. At the same time, that decline threatens greater spillovers from wealth effects on consumption and from tighter credit conditions as lenders react to threats to their capital from declining collateral values. Second, although financial markets are improving in many respects, the trajectory is gradual, uneven, and subject to reversal. We saw this just in the past couple of weeks, when adverse housing data, downgrades of highly rated mortgages and senior tranches, and earnings warnings caused some risk spreads to widen out. The secondary markets for nonconforming mortgages are still quite disrupted. Clearly, uncertainty about the pricing of many of the assets in question, about the amount of credit that will get put back to the bank balance sheets, and about the size and location of the losses that have to be taken continue to make lenders very skittish. In this environment, I wouldn't be at all surprised to see a further tightening of credit availability at banks in the coming months. The developments in housing and financial markets are also likely to weigh on business spending plans, as we saw hinted at in the capital spending revisions that some of the Reserve Banks reported, and for households as evidenced by the low confidence surveys.

These downside risks are strong enough that I think they will persist even if we ease slightly tomorrow. Besides the influences I already cited, my judgment in this regard takes account of market expectations. The markets' implied  $r^*$  has been below the staff's and, I think, the Committee's implied  $r^*$  for some time now, but the gap seems to have widened considerably. In an environment of increased uncertainty about the outlook, such disparities perhaps aren't surprising, and we can't substitute market participants' judgment for our own, but I did take a little signal from the extent of the pessimism about aggregate demand that I inferred from the interest rate path in the market relative to the staff's path in the Greenbook. I don't think  $r^*$  is quite as low as President Yellen was suggesting—it is perhaps in the 2 to 2½ range since term premiums are still low; and

even with house prices declining, the wealth-to-income ratios are still pretty high, and the dollar has been falling.

But I did assume a slight easing of monetary policy sometime in the fourth quarter in my projection. I also projected low, stable core and ultimately total inflation, but I do see some upside risks around this outcome if the economy follows its most likely path. It is still producing at a high level of resource utilization, and some measures of compensation and labor costs have been rising. Core CPI inflation on three-month and six-month bases has accelerated even if the acceleration hasn't shown through to the PCE measures. Increases in energy and commodity prices, along with recent declines of the dollar, are also a risk factor—less from their direct effects on prices, which are likely to be small, but more because they could suggest a potential for a more inflationary psychology that could feed through to expectations. Our decision tomorrow will involve weighing these risks, the extent of the relative risk to our dual objectives, and the potential costs of missing in either direction in the context of the market conditions and expectations built into markets. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. I thought I'd just talk about four subjects today: first, spend a few more moments on the capital market conditions, which Bill did a great job of summarizing; second, talk about financial intermediaries; and third and fourth, talk briefly about implications for growth and inflation. In terms of the capital markets, I think it is important that we judge their state today not from where they might have been two weeks ago or from where they might have gotten ahead of underlying reality—if you look at credit spreads and equities—but from where they were before we last met or from where they were in the darkest days of August. I think these markets are at the very high end of what are reasonable expectations for improvement. As

Governor Kohn suggests, it doesn't mean that they can't reverse themselves. It certainly doesn't mean that they are solid—plenty of fragility is there. But all things considered, as a function of both time and Fed policy, there is, indeed, better sentiment; bid-asked spreads have narrowed; price discovery is at work; and differentiation and tiering are very real. I'd highlight a few markets that have gone into the category of being on more solid ground. Bill referred to the interbank funding markets. The multiseller bank-sponsored conduit is performing well. Prime auto finance paper has gone through quite a volatile period in the past couple of months but has now found its way to the good side, where I think those markets are increasingly open. High-quality paper is increasingly being received on terms that don't look dramatically different from the way they would have looked before August. Another example is credit card receivables.

Of course, as many others around this table have pointed out, there is no panacea. Serious problems remain in some asset markets, particularly housing and certain parts of structured finance. But I note that might be for good reason. I'd hesitate to call this poor market functioning. By and large, it may be that some investors don't like the outcomes, but as the asset-backed commercial paper markets have separated the haves from the have-nots and the have-nots are without bank sponsorship and have poorer quality assets and poorer disclosure, they are having a hard time finding and securing bids. Another example might be some large financial institutions that are rolling over more of their funding on a shorter-term basis than they desire. There may be good reasons for that, and as we think about our policy tools tomorrow, we shouldn't try to come to the rescue with any fixes for institutions that may not have been managed well or, at least, may not have had a capital structure that fit the risks. There are a couple of other indicators of continued concern. Obviously, the Treasury bill market has been quite volatile and is a pretty good reminder to us that these markets are not back to anything that we'd even want to consider normal. Another indicator

that I look to in evaluating whether the capital markets are coming back to some normalcy is the percentage of cash holdings in money market mutual funds. In the pre-July period, money market mutual funds, particularly those that hold these prime-plus securities, would hold 5 to 10 percent of their assets in cash. On the darkest day in August, that was up to 45 percent. By and large, my sense is that the average now is something in the mid-20s. That suggests that there might be requests for redemptions and liquidations for which they need to keep cash available, but they are feeling a little better about their prospects and about some of the paper that they're holding.

On balance, I'd say it's pretty easy for us to sit here and judge improvement. It's a lot harder for us to judge success. I think President Plosser talked about the normalization in these markets, and we must hesitate to think that the markets before their August turmoil were normal. Risk premiums were abnormally low, and access to credit perhaps unusually easy. So in judging the success of time in our policy prescriptions, I think we're having a hard time—at least I'm having a hard time—figuring out what are the new steady-state outcomes that are trying to be achieved. These markets appear delicately balanced between fear and greed. One example of greed, as we discussed in previous meetings, is some of the pay-in-kind, or PIK, securities with toggle features in the high-yield market. One of them was priced just last week between 97 and 98. So some of these corporate credits may well have improved in the eyes of the market beyond what we think might be sustainable. On the other side is fear. A new paradigm is trying to take root in the markets, but the risk of reversal remains very real. The marks on many leveraged loans look good. But if you judge the financial institutions that hold this paper, they are rushing to get the paper to market as soon as they possibly can, perhaps with a view that the corporate credit conditions won't hold at these levels.

Second, let me talk briefly about financial intermediaries. As we discussed before, after the tumult in mid-August, many of them retrenched. Then many of them tried to re-liquefy. At that time they were trying to revalue their securities. Now they are probably somewhere in the process of revaluation, review, and refinement. Some of them, after the earnings announcements of the past couple of weeks, might be going back to step 1 and trying to understand what the risks are and what their liabilities are. Some of the improvements that we saw in the capital markets after our September 18 meeting might have been upended or seemed so by a couple of announcements from a leading investment bank and commercial bank that represented a negative surprise to the markets. A couple of explanations are possible for why the market seemed to react not just with respect to the securities of those two banks. Were the losses and risk-management systems particular to those banks that called the risk management into question, or were they illustrative of losses to larger segments of their peer group owing to poor risk-management systems? It was probably a combination, but I guess the key question for me is whether we are seeing impairment of the entire financial sector or simply the realignment of the competitive landscape. I think the answer is the latter, but I'm not certain. The best-in-class comparables among commercial banks and investment banks seem to suggest that bifurcation is at work. If you look at the credit default swaps, at the profits, and at the share prices for the best in class of this group, they seem to have come out of the scare of a couple of weeks ago stronger and more profitable and, frankly, in much better shape. I would have thought that those sorts of entities would be putting opportunistic capital to work in a hurry, particularly when many of their competitors are down. I'm afraid that is not the case. Even they are playing defense in this market. We talk, I talk, about the resilience of our capital markets. What they tell many of us, I think, is that the way for them to be resilient is to be exceptionally prudent here. The risk-reward tradeoff for them suggests that this is a time to be careful. You can't

succeed if you don't survive, and I suspect that many of them are still quite jarred by recent events. The profitability of most of these financial institutions has been significantly called into question. I suspect that the losses in the fourth quarter are going to look particularly bad, but I would expect that many of these financial institutions are asking themselves the question of what business they really should be in after all.

Third, let me speak briefly about the implications for economic growth. To me there is no question that we have less market uncertainty than two months ago, and the prospects of some really bad tail events have dissipated somewhat; but there is still caution, as Vice Chairman Geithner said. Certainly, large multinational nonfinancial companies, excluding housing, seem to be holding up well, as represented by their bottom-up S&P earnings forecast for the fourth quarter of next year, and certainly there's good news to report, as President Poole suggested, from many in the tech sector. Housing is, of course, as bad as the Greenbook has long suggested. So at the end of the day in terms of trying to judge what's going on in the real economy, we go back to a discussion the Greenbook highlighted for us, which is the state of the consumer. Even though on balance I am a bit more optimistic than the Greenbook for GDP growth for the balance of '07 and '08, I have to admit that the conclusion that consumer sentiment has taken a hit seems, at least from my reading and my discussions with some business leaders, to be backed up by some very disappointing consumer spending for October. Having surveyed a few of the credit card companies, I think that it looks to many of them that October spending is really not at comforting levels. Nominal spending excluding fuel for their consumer base appears flat to down over the past four weeks. That is, I think, a rather remarkable outcome. Delinquencies have also ticked up a bit, but I would say that's probably less disconcerting to me than what the credit card companies seem to be reporting as a

proxy for retail spending. The key over the medium term, however, is job growth and real disposable income, in my judgment more important than the negative wealth effects from housing.

Let me turn to the final issue for discussion—at least on my list—which is inflation risks. At the end of this six-week period, I must admit to being considerably less sanguine about inflation prospects and risks than the Greenbook. It is true that incoming data have not been bad at all. Some have even been pretty good, and inflation expectations are seemingly anchored. But as Governor Kohn suggested, I worry a lot about inflation psychology and the real effect of importing inflation given dollar weakness and the effect of commodity price increase pass-throughs on a breadth of products. Given the massive liquidity on the sidelines, given uncertainty in the global capital markets and the current political calendar, and given the rather large and growing expected discrepancies in interest rate differentials between us and our trading partners, I worry about outsized moves between the U.S. dollar and foreign currencies. A disorderly move in the dollar could prove very costly, even undermining foreign direct investment in the United States and perhaps threatening to unanchor inflation expectations, particularly if the judgments of this Committee aren't well understood by the markets. I have never been a big believer in looking at artificial levels for prices or at charts to figure out where we should worry. Nonetheless, I must say a euro-dollar move beyond 150 strikes me as a level that the markets will be paying keen attention to. We'll obviously talk about the policy tradeoffs involving these risks in the next round. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you very much. I very much agree with Dave's characterization of the Greenbook as a modal forecast, and I think it is an excellent and perfectly reasonable modal forecast. As almost all of us have said, the data are coming in a little stronger.

We will have a fair amount of momentum going into the fourth quarter. We will have a significant drag from housing in '08. The financial markets outside of housing have generally had fairly significant improvement, although a lot of brittleness remains. A very clear example of that is how the markets seemed to flatten out in the past week or so and certain markets backed up a bit, and thus the risk spreads are widening. It is also interesting to note that, when the first earnings reports that were fairly negative were coming out, there was a positive market reaction because it was sort of a relief that they were owning up to the challenges. Now that more information is coming out, some of which is more negative than had been expected, the market's reactions have been more negative, and some of the risk spreads have been widening. That suggests that a lot of concern is still out there, and a lot of people are waiting for the other shoe to drop. I will note that I am sure that other shoe will have been manufactured in Richmond. [Laughter]

Since this was a modal forecast, I want to think about a downside scenario, one on which I put a reasonable amount of probability mass and one that I think we should seriously consider. A number of people have talked about bank balance sheets. Generally, there has been less concern about them than before. One of the big issues that we had focused on earlier was leveraged lending. That seems to be working itself out reasonably well without much incident. There is obviously a lower new flow on, but the new flow does have covenants, et cetera. So that seems to be working out reasonably. ABCP, SIVs, conduits—there is still uncertainty about how much may come onto the balance sheets, although there is a lot more comfort with the extent of the call on the capital that is there, but there is still uncertainty as to how much might be called. You know, the SIVs seem to be working themselves down. They are shrinking through orderly asset sales. But, of course, what are they doing? They are selling the best assets



first, so the potential challenges are still left behind. For the banks, the conforming mortgages are easy to get off the balance sheets. There seems to be a debate about whether banks are choosing not to get nonconforming ones off the balance sheet or whether they can't get them off the balance sheet. Many organizations that have a lot of capital seem to be just originating these wholly on the balance sheet and waiting for better pricing, as we have heard reports from other institutions saying that they are ready, willing, and able to buy at a good price and the supply just isn't there.

Nonetheless, there is still much more carefulness in the underwriting of those loans. Obviously, the jumbo mortgages, the nonconforming mortgages, are more important than they used to be because housing prices have run up so much around the country: \$417,000 doesn't buy you as much house anymore, even in parts of the country that don't have or traditionally have not had particularly high housing prices. That raises a concern about a squeeze through the mortgage markets. So I see that the consequence of the financial turbulence is primarily highlighting issues in the mortgage markets, as a number of people have said. Also, as I think the Greenbook and Bluebook pointed out, it is not a problem for highly rated or even just moderately well rated corporations to get funding. That is not a challenge right now. It seems mainly to be coming through the housing market.

So I see a potential for a slow-burn scenario coming and for the housing market to slowly play itself out because we are going to have continuing negative shocks. More than 400,000 resets are going to be coming every quarter, starting with this quarter, through 2008. As a number of people have noted, we have much higher credit standards than before. Many of the people who were supplying subprime loans no longer exist, and those who are supplying them are supplying them at much, much higher standards. We will be proposing and putting out new

rules. The Congress is considering new rules. This is all casting a pall over people who might potentially be supplying credit into some of these markets. The delinquencies and foreclosures are clearly going to continue rising at least for a few quarters, probably—as analysis by some people at the Board suggests—peaking in mid-2008. But there is still a lot of uncertainty with respect to that. So it is going to continue to put more and more challenges in this market.

All of these things coming together could put a lot more pressure on housing prices. I think we have been seeing some significant declines in housing construction, but I see a potential for a reasonable likelihood of a much larger negative house-price effect than what the Greenbook has. As a shred of evidence for that, the incredibly illiquid Case-Shiller index that is traded on the Mercantile Exchange, if you look forward, for a number of markets they have a cumulative decline of 20 percent over a couple of years. Now, the number of players may be no more than the number of fingers that I have, but still it is a piece of data suggesting that it could be lower. The anecdotal reports are that real housing prices are much lower than the indexes are indicating. Certainly, in the new market, they are throwing in a lot of extras, add-ons, et cetera, and the inventory may actually be larger because the anecdotal reports are that a lot of people are taking their houses off the market, so they are not formally included in the enormous inventories that are out there but may well be potentially there for supply.

So what does this suggest going forward? Well, from a risk-management perspective, we ought to be thinking about buying insurance against this downside scenario. What is the cost of insurance? Inflation and inflation expectations. As most people have mentioned, we have seen some gradual slowing and expectations are still being contained but, as Governor Kohn pointed out, there is a bit of an uptick in the CPI, which is definitely worrisome. But what is the risk? Well, let us think about the upside risk. I go back to 1998, when the FOMC cut 75 basis points.

Growth was 4.5 percent in 1998 and 4.7 percent in 1999. As I mentioned last time, we saw very little increase in inflation—actually a decline in core inflation. I looked at the core PCE in addition to the core CPI that I reported last time, and that was effectively flat at 1.4, 1.6 percent in '98 and '99 and then 1.6 percent again in 2000. The potential benefit of buying a little insurance now is that, given that a lot of these challenges may be peaking in mid-2008, it may have some effect down the line. It provides perhaps a bit more insurance against some of the negative shocks that we may be hearing about. If those other shoes do drop over the next few months, then we have a lower downside risk for broader financial turbulence. Also, by mid-2008, if the scenario that I am describing or the other negative scenarios that people have described, aren't materializing, we can take back some of these moves. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Mishkin.

MR. MISHKIN. Thank you, Mr. Chairman. My forecast is actually quite similar to the Greenbook forecast. In terms of inflation, I see a little faster movement back to 2 percent, where I think inflation expectations are grounded, but the difference is very minor. I do think the risks are quite balanced around that. In terms of economic growth, I am fairly comfortable with the Greenbook forecast, maybe a smidgen less sanguine in the next two quarters but really not very different. However, in terms of the issue of potential downside risk, I do think that, given the policy path that the Greenbook assessed, there are substantial downside risks and they come from several sources. One source is that the financial market disruptions have led to some tightening of lending standards. I think that could have some potential effect on business investment. The housing market is pretty grim. We still have a big inventory overhang, and there is a question about whether that large inventory overhang is going to lead to even fewer housing starts than the Greenbook has forecasted. Furthermore, it has raised the issue about

house prices, which have spillovers into household spending. The spreads for commercial real estate are still very high, and so there is a question about whether commercial real estate will be as strong as it has been. That is a bit worrisome as well. Consumer confidence has not deteriorated too much, but it has been on a path of deterioration. So, again, I worry a little about what the consumer might do. In general, I worry more about these downside risks, given the policy path of keeping the federal funds rate constant.

What about the financial markets and their disruptions? Well, I think that there are two elements to the disruption in these big, widening credit spreads. One is the valuation risk: All of a sudden people realized that they didn't know as much about what kind of assets were in portfolios and how complicated the structures were in terms of those assets. Clearly, the solution to that problem is price discovery. We see that happening, but it is going to be very slow. So that problem, in terms of the credit markets, will take a fair amount of time to resolve. The second element is what I call macro risk, which is the concern about a downward spiral: The problems in the credit markets will lead to a weakening of the economy, which then makes price discovery harder to do, which means that you have wider credit spreads, which then make things worse. Of course, that's the issue with the tail risk that all of us have been talking about. I think the policy change that we did in September clearly had a big impact. It did exactly what we wanted it to do. It is almost a textbook case in doing what we wanted it to do—it took out a lot of the macro risk. It didn't take out the valuation risk, which is getting better but very slowly over time.

So looking at this issue and thinking about going forward in terms of the credit markets, I am a little worried that credit markets are still quite skittish. That has several elements. One is the danger that macro risk could come back. So there is a question about shoes dropping. There

is an issue about what we might do at this meeting, and then there are issues about what might actually happen that people don't know about. One thing that is sort of surprising is that, when you look at what is happening in credit spreads, they seem pretty reasonable in their steady but very slow improvement. But then, you sense some discomfort—in particular, the reaction to the Treasury superconduit has not been very positive. If it worked, it would actually reveal information because it would look like the way that the old clearinghouses used to work, when they would combine assets. Randy knows all about this because he studied this stuff. You pool your assets, then you monitor each other, and then you actually create information that makes the markets work better. I think that is what the Treasury was trying to get at. But the skepticism in the markets is such that they think this could be used to hide information about assets and that other shoes may be dropping in this regard. This does not give me a lot of confidence, and so I worry very much at this juncture, which I think is a critical one, that a policy move could have an effect of sending the credit markets in a bad direction. That is something we have to take into account tomorrow. Thank you.

CHAIRMAN BERNANKE. Thank you. Thank you everyone. Let me try to summarize this discussion. It is a little harder than usual. Broadly, the macroeconomic news came in slightly better than expected during the intermeeting period. Housing has been very weak, as expected; but consumption, investment, and net exports were relatively strong in recent months. In the aggregate data, there is yet no clear sign of a spillover from housing. Most participants expect several weak quarters followed by recovery later next year.

The risks remain to the downside but may be less than at our last meeting. One issue, given all these factors, is determining the equilibrium short-term interest rate. Financial market conditions have improved somewhat since our last meeting, with investors discriminating among

borrowers and with the process of price discovery proceeding. There was general agreement that conditions are not back to normal and that it would be some time before that happened. Some suggested that a risk of relapse remains, should credit quality worsen or further bad news be disclosed. Lending conditions have tightened, particularly for mortgages, and securitization remains impaired. There is not yet much evidence that this tightening is affecting business borrowing, however, although financial conditions may have somewhat increased uncertainty among business leaders.

Views on how consumption would evolve were mixed. Consumer sentiment is on the weak side, house prices are down, and oil prices are up, which suggests some weakening ahead. However, the labor market remains reasonably solid, which should support consumer spending. Anecdotal information about consumer spending was unusually mixed. Some saw evidence of growing weakness in consumption. This evidence included weak reports from shippers and credit card companies. Others saw the consumer side as slowing a bit but generally healthy. Investment, including investment in commercial real estate, may also be slowing somewhat; but again, the evidence is mixed. Manufacturing growth appears to be moderating. Other sectors—including energy, agriculture, high-tech, and tourism—are doing well. Core inflation has moderated, and there was generally more comfort that this improvement would persist. There was less concern expressed about tightness in labor markets and wage pressures. Energy prices and food prices could lead total inflation to rise, perhaps even into next year, and there is the risk of pass-through to the core. Similar concerns apply to the dollar and to export prices. Some, but not all, TIPS-based measures of inflation expectations have risen, and survey-based measures have been stable. Most participants saw inflation risks to the upside, but at least some saw them as less pressing than earlier this year. That is my summary. Comments?

Well, again, as usual, it is hard to be the last person to speak, but let me make just a few comments. First, as always, the Greenbook was very thoughtful. The authors have done a good job of balancing the risks, and I find their forecast very plausible as a modal forecast. Housing does seem to be very weak, of course, and manufacturing looks to be slowing further. But except for those sectors, there is a good bit of momentum still in the economy. Having said that, I think there is an unusual amount of uncertainty around the modal forecast, maybe less than in September but still a great deal.

Let me talk briefly about three areas: financial markets, housing, and inflation. A lot of people have already spoken about financial markets. Market functioning certainly has improved. Our action in September helped on that. For example, commercial paper markets are working almost normally for good borrowers, the spreads are down, and volumes are stable. One concern that we had for quite a while was that banks would be facing binding balance sheet constraints because of all the contingent liabilities that they had—off-balance-sheet vehicles, leveraged loans, and so on. That problem seems to be somewhat less than it was. Some of the leveraged loans are being sold off, some of the worst off-balance-sheet vehicles are being wound down. So there is generally improvement in the financial market, certainly. In the past couple of weeks there has been some deterioration in sentiment, and I see that as coming from essentially two factors. First, there were a number of reports of unusually large and unanticipated losses, which reduced the confidence of investors that we had detected and unearthed all the bad news. This problem will eventually be resolved, but clearly we still have some way to go to clarify where people stand. The other issue, which I think is more pertinent to our discussion, is about economic fundamentals. There was a very bad response, for example, to Caterpillar's profit

report, and so the market is appropriately responding to economic fundamentals as they feed through into credit concerns.

From our perspective, one of the key issues will be the availability of credit to consumers and firms going forward. My sense—based on my talking to supervisors, looking at the senior loan officer survey, and talking to some people in the markets—is that banks are becoming quite conservative, and that is what Kevin said. It is not necessarily a balance sheet constraint but more a concern about renewed weakness in markets. It is also a concern about the condition of borrowers, about credit risk, and the demands of investors for very tight underwriting. Now, of course, tight underwriting is not a bad thing; it is a good thing. But from our perspective, we need to think about its potential implications for growth and, if you like, for  $r^*$ . The biggest effect of the tighter underwriting, of course, has been on mortgage loans, although we have seen a bit of improvement in the secondary market for prime jumbos, which is encouraging if that continues. This is the area in which vicious-circle effects, which Vice Chairman Geithner and others have talked about, is most concerning. House prices, according to the Greenbook, are projected to fall 4½ percent over the next two years. Clearly, there is some downside risk to that. If house prices were to fall much more, that would feed into credit evaluations, into balance sheets, back into credit extension, and so on. So I think there is a risk there, as Governor Kroszner and Governor Mishkin also discussed. The corporate sector is not much of a problem. Good firms are issuing debt without much problem. I don't really have much read on small business, but I have not heard much complaining in that area either. With respect to consumers, my guess is that we are going to see some effects on consumers. Certainly, home equity loans and installment loans have tightened up. We can see that in the senior loan officer survey. We don't see that yet for credit cards, but since a lot of credit cards are used by people with subprime



credit histories, I suspect that we will see some tightening there. So I do expect to see some effect on consumers from credit conditions.

As has already been mentioned, an area we also need to note is commercial real estate. Financing conditions have already tightened there quite considerably, and spreads are much wider. The senior loan officer survey shows the tightening of terms and conditions that matches previous recessions, and CMBS issuance has dropped very significantly. You can debate whether or not this tightening is justified by fundamentals. On the one hand, vacancy rates remain low, and rents are high. On the other hand, it is still also true that price-to-rent ratios are quite high. If you calculate an equity risk premium for commercial real estate analogously to the way you calculate one for stocks, you would find that it is at an unusually low level, which would tend to suggest that prices may fall. So it is uncertain, I would say. Certainly one area in which we might see further retrenchment in commercial real estate is the public sector: Tax receipts are slowing, and that might affect building decisions. So I do think this is another area in which we will be seeing some effects from credit tightening. I should be clear—the Greenbook already incorporates a considerable slowdown in commercial real estate, but that means it will no longer offset the residential slowdown.

I just want to make one comment about housing, which I think we all agree is a central source of uncertainty, both for the credit reasons I have discussed and in terms of prices, wealth, and other issues. Let me just make one point that I found striking anyway, which is that—at least from the Greenbook—the forecast of a strengthening economy by next spring and the second half of next year is very closely tied to the assumption that housing will turn around next spring. In particular, if you look at all the final demand components for the economy, other than housing, in 2007 those components contributed 3.5 percentage points to GDP. According to the

Greenbook forecast, in 2008 all those components together will contribute 2.0 percentage points to GDP. So the fact that GDP doesn't slow any more than 0.6 comes from the assumption that the negative contribution of housing next year will be much less than it was in this year. It is certainly possible—again, I think the Greenbook authors have done a good job of balancing the risks. But as we have noted, we have missed this turn before, and it could happen again. So let me just note that as an important issue. If we do miss on that turn, the other forecast errors for consumption and so on obviously would be correlated with that miss.

Finally, let me talk for a moment about inflation. I want to share the concerns that some people have noted. If you wanted to be defensive about inflation, you could point out that the movement in oil prices and the dollar and so on is in part due to our actions. But it is also due to a lot of other things—for example, the dollar in broad real terms is about where it was in the late '90s. In that respect, it is perhaps about where it should be in terms of trying to make progress on the current account deficit. Similarly, with oil, a lot of other factors besides monetary policy are involved. That said, I share with Governor Warsh the concern that the visibility of these indicators day after day in financial markets and on television screens has a risk of affecting inflation psychology. I do worry about that. I think we should pay attention to that. So I do think that is a concern, and we obviously need to take it into consideration in our policies, in our statements, and in our public remarks.

I have one more comment on housing before ending. In thinking about the turnaround for housing next year, Governor Kroszner talked about resets and those sorts of issues. We spend a lot of time here at the Board thinking about different plans for refinancing subprime borrowers or other borrowers into sustainable mortgages. We have looked at the FHA and other types of approaches. A very interesting paper by an economist named Joseph Mason at Drexel

discusses, at a very detailed institutional level, the issues related to refinancing, in terms both of the servicers' incentives and of the regulatory perspective. Mason points out that there are some serious regulatory problems with the massive refinancing effort, including consumer protection issues, because refinancing can be a source of scams. There are also issues of safety and soundness because refinancing can be a way to disguise losses, for example. If you read that paper, I think you will be persuaded—at least I am becoming increasingly persuaded—that a significant amount of refinancing will not be happening and that we will see substantial financial problems and foreclosures that will peak somewhere in the middle of next year. So I think that is an additional risk that we ought to take into account as we think about the evolution of housing.

Those are just a few comments on the general outlook. Let me just note, we will adjourn in a moment. There will be a reception and a dinner, for those of you who wish to stay. There will be no program or business, so if you have other plans, feel free to pursue them. A number of pieces of data, including GDP, will arrive overnight, and we will begin tomorrow morning with a discussion of the new data. Perhaps that will help us in our discussion of policy. Thank you. The meeting is adjourned.

[Meeting recessed]

**October 31, 2007—Morning Session**

CHAIRMAN BERNANKE. Good morning, everybody. Let's start with Dave Stockton, who will bring us up to date on the overnight data releases.

MR. STOCKTON.<sup>3</sup> We left at your place—and I hope you will find—a table showing the GDP release numbers relative to the Greenbook forecast that we had. I thought I would start out by just walking you through that for a minute and giving my impressions of what its implications are. As you can see, there was an advance estimate of third-quarter GDP of 3.9 percent—that was 0.6 percentage point above our estimate for the third quarter. Looking at the second line of the table, you can see final sales. We were actually surprised a bit to the downside—just a tenth—by final sales. The real area of surprise in this release, if you look further down the table to the level in chained 2000 dollars, was the change in nonfarm inventories. The BEA has a much higher estimate for third-quarter inventory investment than we do. Typically that change doesn't carry a great many implications for us going forward. If anything, if we hold inventory investment at the level that we projected for the fourth quarter, the higher level that they are estimating for the third quarter would actually lead to a reduction in our estimate of fourth-quarter GDP.

Going back just briefly to the components of final sales, as you can see, two areas explain most of the small downside surprise that we had in final sales. Personal consumption came in at 3 percent versus the 3.2 percent we were estimating, and equipment and software expenditures came in at 5.9 percent versus the 7.4 percent that we were estimating. One other area that came in a bit below our expectations was net exports, which is down there in the "level" area. Nathan tells me that his folks would not be inclined to take all of the lower estimate, so they would probably be carrying a slightly higher number for net exports going forward.

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<sup>3</sup> The materials used by Mr. Stockton are appended to this transcript (appendix 3).

We had two small offsetting upward revisions. One that was big in percentage change difference was nonresidential structures, for which the BEA is estimating 12.3 percent versus 3.7 percent. That miss was principally in drilling and mining, which would have been a big surprise to us in the second quarter. The BEA has some proprietary information on drilling and mining. I must say the big increases that they are showing for the past two quarters seem at odds with what we can see in the data that we look at for rigs in use and foot-drilled. Nevertheless, there is not really any strong reason to doubt that. Going to the very bottom part of the table, you can see for core PCE an upside surprise of 0.2 percentage point. That was all in the nonmarket component of PCE prices, the part in which the BEA is making various imputations. In fact, the market part of the core PCE came in 0.1 percentage point below our expectations. Again, we don't typically give a great deal of weight to nonmarket prices.

So that is the GDP release. I would say, obviously, it was stronger. I don't see any reason necessarily to doubt this number. It will be revised as data come in. In looking at their estimates for September, for which they are missing data, we could quibble a bit on net exports and on inventories. Those quibbles would be largely offsetting, so if we had had this release in hand, today we would probably be showing a number something close to 3.9 percent.

We had two other important pieces of information this morning. One was the ADP survey of private payroll employment growth. Their estimate for the gain in private payrolls in October is 106,000. That is above the 50,000 that we implicitly had built into our forecast. Again, this has significant information content in terms of its predictive content for payrolls; they have improved their methodology over the past couple of years as they have gotten into this. While I don't think we would move our estimate all the way to their 106,000, we would certainly

raise it from the 50,000 that we have—probably to 75,000 or 80,000, at least, for an estimate of payroll employment growth in October.

The other piece of data that came out this morning was the employment cost index. It is showing hourly compensation for private-sector workers up at an annual rate of 3.1 percent in the third quarter. That is considerably below our estimate of 3.8 percent through the third quarter and leaves the twelve-month change in that measure of hourly compensation flat at 3.1 percent. So that basically is showing no signs of any acceleration whatsoever.

Obviously, a lot of detail will come out later today and tomorrow in terms of the underlying data and assumptions behind this GDP release. So right now I am really shooting from the hip, but I will shoot away anyway. As I indicated, I don't think we would necessarily fight the BEA on the 3.9 percent. We would probably mark down our fourth-quarter estimate from the 1.4 percent that we had in the Greenbook to 1.2 percent, with a smaller contribution coming from inventory investment. Again, we would probably raise our level of inventory investment a bit but not enough to prevent the swing from becoming a little more negative going into the fourth quarter. That change, if we were at 3.9 in the third quarter and 1.2 percent in the fourth quarter, would boost the second half from 2.4 in the Greenbook to about 2.6 and raise the year as a whole from 2.3 to 2.4. On PCE prices, I don't think we would really do anything to our forecast. We would take the third-quarter estimate on board, but we would keep the growth rates of both total PCE prices and core PCE prices unchanged in the fourth quarter. So we would be adding somewhere between 0.1 to the second half and 0.05 to the year as a whole. That might cause the year as a whole to round up just a bit.

I think that is basically where we would be. In going back to my remarks of yesterday, I think that these releases—certainly the GDP release—would not have affected in any important

way our basic take on the data, which was that the incoming data have been stronger than we had expected at the time of the last meeting. But we still see good reasons for thinking that GDP growth will slow significantly going forward. If we do get 106,000 on payroll employment for October as in the ADP data, the extent of that slowing will probably be a little less than we thought in terms of the overall level of GDP going forward. In terms of the downside risk, I think we are still looking at a housing sector that has a significant amount of overhang and downside risk and that could be a bit worse than we're expecting.

Shifting gears completely—Vice Chairman Geithner asked yesterday about debt growth in our forecast and how it compared with the early 1990s and the earlier part of this decade. I have left a chart of that at your places. As you can see, our forecast has a bigger drop-off in debt growth than we have experienced so far in this decade but not nearly so large as the one that we experienced in the late 1980s and the beginning of the 1990s. Again, I would characterize this forecast as not really having what you would call a full-blown credit crunch but as having some significant restrictions on credit provision going forward. So I will take whatever questions you might have, and I will do my best to answer them.

CHAIRMAN BERNANKE. Any questions for Dave? President Fisher.

MR. FISHER. Mr. Chairman, I just wanted to ask—and this is a question based on ignorance—you've talked about nonresidential structures, and you mentioned drilling and mining. One thing that has impressed me in talking to some of the bigger logistics companies—Fluor, Bechtel, Zachry—are the enormous numbers in what I mentioned earlier—the infrastructure developments in the Gulf Coast area and somewhat in the heartland, I think all the way up to President Hoenig's District. The numbers are quite large, and they continue to surge. Would that be part of this nonresidential structure investment number?

MR. STOCKTON. Yes, most of that would be part of this nonresidential structure figure. But since we don't know exactly what proprietary information the BEA has, I'm not quite sure what is included in the number. But conceptually, that should be there.

MR. FISHER. And the weight of construction and mining is what?

MR. STOCKTON. Drilling and mining in the overall economy is very small.

MR. FISHER. Yes, that's what I thought.

MR. STOCKTON. I mean, nonresidential structures contribute about 3½ percent; drilling and mining I could get for you.

MR. FISHER. I think the two combined are something like that.

MR. STOCKTON. Yes, it's a small piece.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Other questions for Dave? President Rosengren?

MR. ROSENGREN. I had a follow-up question on nonresidential structures. You talked about drilling and mining, and I was wondering about the other parts of commercial real estate. Was anything in there? I don't know if you had a chance to look at it, but the reason I ask is that, if you thought financing was starting to become a problem and you do have very weak nonresidential investment going forward, you would expect to start seeing it there. So I'm wondering if anything was in that breakout.

I have a second question, which is that you didn't mention durable goods. But if I thought that credit problems, particularly subprime and other things, were starting to create issues, I would expect to start seeing more imprints in the data for some of the durable goods. So was seeing durable goods a little stronger in the consumption figures a surprise at all?



MR. STOCKTON. We don't have the details yet. In fact, a construction-put-in-place release will come out later today and will provide us with a bit more insight into the composition of the non-drilling-and-mining component. So I don't really know what is happening there in terms of this particular figure. In terms of durable goods, given what we've seen, I think that it would still be early at this point for any credit restriction to have left much of an imprint on capital spending or durable goods orders. We are looking for that. We have been a little surprised at the strength there, so I think that would be part of a question mark in our own minds as to whether we have overestimated the restraint. But as I said yesterday, given the data that we currently have in hand, I think it is probably too early to see a significant mark yet from the credit restraint. If we don't over the next three or four months, that will more seriously call into question our forecast. Now, we have not built in a very large capital spending effect from the financial turmoil because we basically think corporate finance is still looking pretty good. There may be some pockets of stress and some difficulties with tighter terms and standards in bank lending, but that is not the big area in which we are expecting constraint. It really is the household sector.

CHAIRMAN BERNANKE. Brian?

MR. MADIGAN. Mr. Chairman, I would just like to take this opportunity to remind the Committee that you will have the opportunity to revise your projections that you submitted a few days ago in light of the information available through the time of this meeting—of course including the data that were released this morning. We would need to get your revised projections by close of business tomorrow.

CHAIRMAN BERNANKE. Thank you. Other questions? If not, Brian?

MR. MADIGAN.<sup>4</sup> Thank you, Mr. Chairman. I will be referring to the package labeled “Material for FOMC Briefing on Monetary Policy Alternatives.” That package includes two versions of table 1: The first is the version that was discussed in the Bluebook, and the second is a revised version dated October 31. The revised table presents basically the same policy alternatives as the Bluebook version but with some changes in the rationale and risk assessment sections. To review, alternatives B and C contemplate leaving the stance of policy unchanged today, but they differ importantly in their assessments of risk: Alternative C characterizes the downside risks to growth as roughly offsetting the upside risks to inflation, whereas alternative B indicates that the downside risks to growth are the Committee’s greater policy concern. Alternative A, in contrast, eases the stance of monetary policy 25 basis points and indicates that the Committee assesses the risks to growth and inflation as roughly in balance. In discussing these alternatives, I will basically be working from right to left across the two versions of the table.

As Dave Stockton discussed yesterday in response to a question from Vice Chairman Geithner, the Greenbook projection is a modal forecast. Without consideration of risks, the Greenbook analysis would seem to support the Committee’s selection of alternative C. In that forecast, which is conditioned on the federal funds rate remaining at  $4\frac{3}{4}$  percent, economic growth slows in the near term, and below-trend growth over the next few quarters closes the small positive output gap that the staff sees as currently prevailing. Maintaining the present stance of monetary policy leads to a gradual strengthening of the expansion over 2008 and 2009 and by enough to leave the economy producing at its capacity. Core inflation stays under 2 percent, while total inflation runs a bit lower, reflecting declining energy prices. Judging by your projections, most of you would find such a trajectory for inflation satisfactory, at least for the next couple of years if not over the longer term. Your projection submissions, however, as well as your comments yesterday, suggest that many of you see less vigor in aggregate demand than the Greenbook does as well as appreciable downside risks—an outlook that might argue against alternative C. The Greenbook provided several alternative simulations involving greater weakness in housing and larger fallout from financial stress that illustrate some prominent risks to spending; they suggested that the path of the federal funds rate might need to run  $\frac{3}{4}$  percentage point or more below baseline should such weakness in aggregate demand eventuate.

The choice of alternative B could be consistent with a modal expectation along the lines of the Greenbook coupled with appreciable concerns about downside risks and a judgment that you need to await additional information before deciding whether to ease policy further. As noted in alternative B, section 2, of either version, the statement would in effect explain the decision to stand pat, first, by recognizing that economic growth last quarter was solid and perhaps conveying the implicit suggestion that the economy was likely to continue to expand at an acceptable pace, even if growth were to slow temporarily; second, by noting that strains in financial markets have eased somewhat on balance; and third, by indicating that the domestic

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<sup>4</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 4).

economy apart from housing has proven resilient and that the global economy remains strong. At the same time, the statement would indicate that the Committee is concerned about downside risks to growth, explicitly citing the potential effect of tightening credit conditions. Regarding inflation, the language would be identical to that used in September. The statement would conclude by indicating that, on balance, the Committee saw the downside risks to growth as the greater policy concern.

As Bill Dudley noted, the market was all but certain as of yesterday that you will ease policy today 25 basis points. Today, in response to the economic data released earlier, intermediate and longer-term interest rates have risen somewhat; however, futures quotes still suggest that investors now see high odds that you will ease policy today. Thus, the announcement of an unchanged stance of policy would come as a considerable surprise to markets. To be sure, the assessment under alternative B that the downside risks are the greater policy concern and its implication that further easing might well be forthcoming before long would soften the blow. But a selloff in bond and equity markets would no doubt ensue. Moreover, financial asset prices could remain volatile for a time, as investors attempted to recalibrate their expectations of the probable path of monetary policy going forward.

Concern about such market reactions clearly would not persuade you to ease policy at this meeting if you judged that an unchanged stance of policy would likely be more consistent with maximum employment and stable prices, and hitching monetary policy to market expectations would make for extremely poor economic outcomes. But especially in circumstances of persisting financial strains, concern about unnecessarily adding to those strains might incline you a bit more toward easing, as in alternative A, if you were already strongly leaning that way today based on your view of economic and financial fundamentals. As I noted yesterday, your economic projections suggest that most of you believe that the stance of policy should be eased within the next six to twelve months, and many of you indicated that some easing was appropriate imminently. You may see several reasons for preferring to move earlier rather than later. In particular, you may think that a timely reduction in interest rates could be valuable now in buoying household, business, and investor confidence. Yesterday the Chairman noted the possibility of a vicious cycle involving a deteriorating macroeconomic outlook and tightening credit conditions. By bolstering confidence in the outlook, easing policy as expected could help reduce concerns about deteriorating economic fundamentals and declining asset values. Beyond reducing the risks of nonlinear responses, easing policy as expected by market participants would support growth of aggregate demand over time through the usual channels.

Of course, you may also be worried about a possible increase in inflation. Such concerns may reflect a variety of factors—the further sharp increase in oil prices of recent weeks, the depreciation of the dollar, accelerating unit labor costs, and perhaps the relatively high level of resource utilization. But given the recent good inflation performance, you may feel that downside risks to growth are the more immediate danger and believe that further easing today to address those risks is warranted. You

may also believe that, should the easing eventually appear to have been unnecessary, you could act as quickly to remove stimulus as you did to put it in place. If you were inclined toward easing policy another 25 basis points at this meeting, you would need to confront the question of the appropriate statement language. In both versions of alternative A, the first two sentences of section 2 are similar to those proposed for alternative B. But rather than emphasizing remaining downside risks, the statement would then repeat most of the “help forestall” language used in September. The language proposed for the inflation paragraph in both versions is identical to the corresponding paragraph suggested for alternative B; again, the language shown in the October 31 version suggests a bit more concern about inflation risks than the September language. Finally, both versions of alternative A would characterize the upside risks to inflation as roughly balancing the downside risks to growth. This indication might well lead market participants to reduce the nearly two-thirds odds that they currently place on another quarter-point easing in December and might trim the extent of the overall easing of policy anticipated over the next year or so. Thus, implementation of alternative A also could prompt some further backup in market interest rates.

In closing, let me remind the Committee that the September trial run highlighted the potential for inconsistencies between the results of the projections survey and the Committee’s statement. Your latest forecast submissions indicated that, while a minority of you sees the risks to inflation as skewed to the upside, a slight majority perceives the risks to total inflation as broadly balanced, and a more-sizable majority judges that the risks to core inflation are in balance. These results could be seen as incongruent with the draft statements for some of the alternatives. For example, alternative A references upside risks to inflation. Several considerations might explain this apparent inconsistency. For example, your responses on skews in the projections survey may capture only the subjective probabilities that you attach to various outcomes, while you may see the statement language as capturing not only the odds but also the economic costs associated with those outcomes. Or perhaps the upside risks to inflation referenced in the statement should be interpreted as reflecting the views of all members not just of the majority who saw inflation risks as balanced, thus encompassing the views of those in the minority who see upside inflation risks. Finally, I am worried about the possibility that some of you may have provided your numerical projections under the assumption of appropriate monetary policy but may not have applied that assumption as well to your individual risk assessments. In your upcoming remarks, you may wish to address whether there is any tension between your own views of the distribution of risks and the risk assessments in the draft statements. Thank you.

CHAIRMAN BERNANKE. Brian, do I have it correctly that the blue shows the change between the Bluebook and the current version?

MR. MADIGAN. Yes.

CHAIRMAN BERNANKE. So the only changes from the Bluebook in A-3 and C-3 are that there's a more expansive description of the inflation risks, and in A-4 there is simply the phrase "after this action." Those are the only changes from the Bluebook. Are there any questions for Brian? President Evans.

MR. EVANS. Brian, we don't have a long history of announcing the risk assessments contemporaneously with the decision, so I'm curious as to your take on the likely response. In alternative B, section 4, it says that the Committee views the downside risks to economic growth as the greater policy concern, and I think you said that markets would likely see a funds rate decline as forthcoming. What has been our experience when we have invoked this type of risk and what has the actual policy been afterward?

MR. MADIGAN. I'm not sure I could answer that without doing a fair amount of research, President Evans. My sense is that, as I think I indicated in my remarks, for the policy decision today there is effectively 23 basis points or so of easing still built in. So there would be a considerable surprise in that dimension. According to a chart that I am looking at, the biggest upside surprise in the federal funds rate that we have experienced since the era of policy announcements began in 1994 has been more on the order of 12 basis points. So that dimension of alternative B would, I think, be pretty significant. I don't really know how much the assessment of risks might moderate the shock. I think there would be some moderating effect there, but it would be limited.

MR. EVANS. So as I thought about this briefly, it seemed to me as though it's not unusual for us to say that, because of the risks of higher inflation, we don't feel we'd take action in subsequent meetings for quite some time. But when we have had this type of assessment—I

think there have been only a couple of opportunities—usually we’ve had a decline pretty quickly thereafter.

MR. DUDLEY. I think the market takes the upside risk to inflation as more what central bankers have to say.

MR. MISHKIN. The mantra.

MR. DUDLEY. Right, and I think that the downside risk would be viewed as more a hint of the way that the central bank is leaning. So I don’t think they are symmetric.

MR. EVANS. Thanks.

CHAIRMAN BERNANKE. Governor Mishkin.

MR. MISHKIN. I just wanted to ask you for a little more detail about the market’s reaction to the GDP numbers and the ADP data. You said that it’s the same. Can you be just a little more precise? Is there any movement at all in terms of the assessment of the federal funds rate cut at this meeting?

MR. MADIGAN. A very small one, I think.

MR. MISHKIN. About how much?

MR. DUDLEY. November fed funds futures were up 1 basis point, December was up 2 basis points, January fed funds were up 2 basis points, and then as you go further out they are 4 to 5. So it’s fairly small.

MR. MADIGAN. Breakevens were up about 3 basis points across the curve.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. I have two questions. One just came to mind. We are talking about very recent futures expectations. In light of what you just discussed, what has been the range in the intermeeting period in terms of the odds of a 25 basis point cut?

MR. DUDLEY. I think it has been as low as 30 and as high as—it's nested, because there is some probability on 50 and some probability on 25. But if you look at the Cleveland Fed, I think it has ranged from about 30 to about 80.

MR. FISHER. So it has been all over the lot. My question really is maybe not so much of Brian but just to inform a decision here, or at least to inform an input. There was some discussion yesterday of strong hints about the need to have insurance—that is, insuring against the risk of downside economic growth that might be more dramatic than we would like. We did cut rates 50 basis points at the last meeting. David, when do you assume that kicks in—other than the psychological effect? I infer from the numbers in the Greenbook that you see it begin to have an effect on the kind of economic growth we were supposing sometime in the second half or at the end of the second quarter of next year. Or what is the lag? We have already bought an insurance policy. The question is, Is it enough? So I'm curious as to what your assumption is as to when that actually takes grip in the economy.

MR. STOCKTON. It starts immediately—small. The mean lag is about four quarters, so you get about half of the effect in the first year and the other half of the effect in the second year; and that, at least according to the models, feeds in relatively smoothly over that period.

MR. FISHER. Did it bump up your estimate for the second half of next year in terms of economic growth from where it would have been had we not cut rates 50 basis points?

MR. STOCKTON. Yes.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Are there any other questions? President Rosengren.

MR. ROSENGREN. Just a follow-up on your comment about thinking about the release and of uncertainty and risks around inflation and unemployment—it looks as though the

nomenclature that we've used in the assessment of risks was in part intended to get at the direction of policy in the future. It does seem a little awkward if the language that we're using in the assessment of risks looks different from these fairly stark histograms. Since we haven't gone through this experiment before, seeing histograms that aren't consistent with our statement seems like an awkward start.

MR. MADIGAN. Well, one point to make is that the histograms aren't in the public release. They won't see those data per se.

MR. MISHKIN. They will be. The histograms will be published—yes?

MS. YELLEN. Not the asymmetry of the risk, but it will be described.

MR. MADIGAN. Right.

VICE CHAIRMAN GEITHNER. I think this emphasizes the importance of the point that Brian made about the opportunity everybody has to revisit their submissions, particularly in terms of how they think about the risks to the forecast in the wake of a possible move in monetary policy. We haven't talked about this in much detail before, but if the expected path of monetary policy in the near term changes between when you submit and when we clarify, then that might change a bit and, I would think, would affect what those histograms might look like in terms of the balance. It won't affect them dramatically, but it will affect them a little. I'm not sure it will make them converge fully to the way alternative A, section 4, is written now.

MR. ROSENGREN. Just to follow up on that—we submitted this last Friday, right? I don't know if people will know when we submitted it, but it's not a huge amount of time between when it was submitted and when we are making an announcement. So if there were a larger span of time, I would think that awkwardness wouldn't be as great.

VICE CHAIRMAN GEITHNER. I think your point about the awkwardness is right.



CHAIRMAN BERNANKE. President Poole.

MR. POOLE. I have a process question. In this go-round, are we going to talk just about the policy decision in the statement, or are we supposed to include the discussion of the projections?

CHAIRMAN BERNANKE. It's a separate agenda item.

MR. POOLE. So it will be a separate discussion. That's what I thought. Okay.

CHAIRMAN BERNANKE. Yes. Are there any other questions for Brian? If not, President Lacker.

MR. LACKER. Thank you, Mr. Chairman. While the intermeeting period has seen a mix of good news and bad news, a substantial amount of good news, the net effect on my near-term outlook, as I said yesterday, has been negative, stemming largely from the continued slide in housing. I have come around to the view that the slump in housing activity is going to be deeper and more prolonged than I had thought. Many of you have read the intermeeting news as positive on the outlook. My sense of my shift in views is that I have come closer to the median view of my colleagues around the table about the second-half outlook. Taking all of this on board, my assessment would be that, even given the 50 basis point reduction in the fed funds rate at the September meeting, the current funds rate is probably somewhat more restrictive than is desirable. So I would favor a 25 basis point reduction in the fed funds rate at this meeting, along with a statement that contains no tilt, as in alternative A; and I endorse the passages in blue that highlight the inflation risks.

Let me first comment on market expectations. You know, they have to influence our decision, but we need to be careful about that, obviously. I don't think we should ever be afraid of disappointing expectations or putting a new outlier in Brian's chart. At the same time, those

expectations are a fact, and we have to take into account the likely effect of our action on markets. As I think Governor Kohn said yesterday, they do contain within them some market assessment, some information, that we can't ignore or that we ignore at our peril. So that had some influence on my decision as well. I'm thinking that there may be a need for an increase sometime next year if the economy strengthens more than in the staff forecast. In addition, I have not lost sight of the risk of inflation increasing. In particular, I'd take this opportunity to endorse the public statement of Governor Kohn that an increase in inflation would not be in the public interest. [Laughter]

MR. KOHN. I stand by that.

VICE CHAIRMAN GEITHNER. That would be intrepid of you.

MR. LACKER. Well, I'm hoping that inflation drifts down enough so that pessimists about adjustment costs will swing around to endorsing a lower numerical objective for inflation. If we see signs of firming inflation or firming growth early next year, I would hope for a firmer policy stance accompanied by appropriate communications. So my preference today is a component of a preferred policy rule that has us responding with alacrity should things firm next year. That concludes my statement, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. I'll take just a second here because I realize how difficult today's decision is and that it involves balancing contrasting and rather elevated risks. One risk is that the current housing and financial environment will cascade the real economy immediately into a slowdown, and that would cost output and jobs and prove after all to involve little effect on rising inflation. To do nothing in this instance, I realize, would at least seem to be a poor choice.

The other risk, however, is that inflation is less contained than we would like to think. Aggregate demand is at least holding and looks firm. Commodity prices, not just energy, show a rising trend and are unusually high. The dollar has depreciated, as Brian pointed out, and if it continues to fall, will add to further inflationary pressures. Unit labor costs are increasing, and these inflationary factors are real and show themselves to be present in TIPS measures and in terms of expected inflation, as I mentioned yesterday, in a lot of anecdotal discussions that I have had. To ease further in this instance would also seem to be a poor choice.

I realize that the intensity of these two countervailing forces complicates our decision, and I know that I might be only one view on this, among others who have a different view. But as I see it, we are having to choose a policy that involves tradeoffs around these two choices. One choice is to ease now. We would take an action that is oriented toward the short run, and the immediate easing could be looked at as an insurance policy, as I have heard it described, designed to mitigate further the possibility that the current upheaval in the housing and financial markets will lead to an unwanted slowdown in the real economy. If the economy strengthens, as President Lacker has pointed out, we can always reverse that easing—so we tell ourselves. The other choice is to hold firm now. Inflationary risks, as I've described above, are real; and while they are unlikely to affect us in the short run, they most certainly could affect us in the longer run if we continue to ease. If inflation above acceptable levels gets entrenched into the U.S. and global economies, make no mistake—as we all have experienced, this has happened before. Inflation does creep in. It doesn't jump in—it's a little at a time. Also, if we ease today and things don't turn immediately, we will be reset for another discussion of what the market expects when we come to December. The cost to remedy inflationary momentum later is also high—indeed, as we all know.

So what is the better choice, then, when adjusted for long-run and short-run considerations regarding these elevated risks? Personally, I think that we should hold where we are. When I analyze how the U.S. and global economies are performing and look at the projections for these economies that we shared here, I judge this to be the better long-run decision. We moved rates down significantly at our last meeting. Indeed, we front-loaded the action to ensure a strong result. Also, we are very close to neutral, if not there, I realize, and we need to be slightly firm if we are to hold inflation and inflationary expectations better in check. It strikes me that inflation is at the higher end of what most individuals prefer. If we need to move down, we can do so later. It is, in fact, easier to lower rates than to raise them back up. Our issue today, I think, remains for the moment principally liquidity, and we should remind the world that we have stepped up to this issue and reassure it that we are ready to meet the need further—and other needs, if necessary. But for now the risks on both sides of this policy decision are elevated, and we need to wait, watch, and be ready to act depending on how events play out.

As to the statement, then, I prefer alternative B for the most part. I would prefer something along the lines in paragraph 4 that “financial markets remain uncertain,” and then “thus the Committee will continue . . .” or paragraph 4 in alternative C. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. I’m sorry. You prefer C-4 to B-4, is that what you said?

MR. HOENIG. I do.

MR. KOHN. Including the balanced risks?

MR. HOENIG. Well, what I really prefer is that we go back to our last statement but say, “Financial markets obviously remain uncertain, and we will watch them. Thus . . .,” and then

bring in “the Committee will continue to assess the effects of financial and other factors,” without the downside risk.

CHAIRMAN BERNANKE. So that is basically the September assessment.

MR. HOENIG. Exactly.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I agree with President Hoenig that this is a difficult decision between staying where we are—and I would have downside risks to growth on that—or moving 25, but with more-balanced risks. I think it’s difficult—we are balancing a number of very difficult things here. On the one hand, the incoming data, as Dave has emphasized, have been, if anything, stronger than we anticipated on the real economy and include data for September and some hints for October in here. On the other hand, many members of the Committee, myself included, have a sense that the real interest rate is still a little to the high side of where it needs to be to promote full employment and stable prices over time. We expect the output gap to move over the next couple of quarters, as housing holds down growth relative to potential. We expect inflation to stay low and inflation expectations, if anything, perhaps to edge down as people realize that inflation is going to stay at 2 or below. I wonder whether the 50 basis points we did last time was enough to offset the tighter credit conditions that have developed and the market disruptions that are going to impede, particularly, the secondary markets for nonconforming mortgages for some time. This stuff isn’t going to go away soon, and it’s going to weigh on demand.

Partly as a result of this sense, many of us think that the risks to growth are on the downside but are still worried about inflation expectations. The risks to growth on the downside are compounded, as the Chairman and Brian pointed out, by the sense that financial markets are

still fragile and there is the tail risk of getting into the feedback spiral between concerns about the real economy and reactions in financial markets. Not the most likely outcome, but certainly a tail risk.

As I tried to square several circles at the same time, I came down on alternative A: reducing 25 basis points but going to risks being roughly balanced. I see this as preemptive but not open ended. I think that combination of preempting some of the tail risk, getting a little ahead of the possibility, and buying this insurance is helpful. But going to roughly balanced risks takes out the open-ended sense that we're on a path toward ever-lower interest rates. I see the incoming data for inflation as consistent with this. Inflation has been low even with today's data. I think the core PCE has been low; the CPI is up a little but not much. I found the ECI data kind of interesting this morning. I have been a little concerned about labor costs creeping up, which you could see from some of the compensation data. But the ECI is a good, consistent measure over time. It is not totally comprehensive. Also, the fact that there is no increase in the growth rate of the ECI to me is pretty encouraging that underlying cost pressures are not building. By emphasizing our concerns about inflation—that the risks are roughly balanced—we are signaling that we are not buying into the full extent of the market expectations for our easing, and I think that is a good thing. The “roughly balanced” language will raise the hurdle a bit for ourselves to ease again in December if we have some weak data, but it won't raise it so high that, if the data are really weak, we can't react in a constructive way to change it.

So putting all of this together and admitting that it is a close call, I think that alternative A—roughly balanced risks—minimizes the deviations from where we want to be, helps us send the signal about what we think might be coming and what our concerns are, and comes closest to furthering economic performance toward our objectives. I certainly agree with President Lacker

that alacrity will be required. I think I actually called it “nimbleness” in the speech I gave—I want to quote myself again—and that will be very much in the forefront as we go forward next year, I agree. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. One of my life-long purposes has been to make the world safe for ambivalence and indecision. [Laughter]

VICE CHAIRMAN GEITHNER. How is that going?

MR. LOCKHART. Well, I’m gaining ground this morning. [Laughter] Having said that, I prefer that we reduce the federal funds rate target 25 basis points. My thought process is that the softening of economic activity, at least in some sectors, and the lower estimates suggest that the neutral rate of interest may be falling. The downside risks to economic growth and the evidence of lingering liquidity issues are to me good arguments for taking steps that insure against an inadvertently restrictive policy stance.

With regard to the policy statement, I am going to continue to use the inexperience excuse as long as I can, even though we have some newer members. But just a few remarks. The language in the rationale section of alternative A most closely reflects my assessment of the situation, but I am not entirely comfortable with any of the options for the assessment of risk. The real economic outlook faces uncertainties on the downside that are difficult to characterize. Because of that, I am skeptical that we can credibly claim near-term downside growth risks to be roughly in balance with upside inflation risks, as is done in alternatives A and C. That said, I worry that the wording in alternative B would be interpreted as a rather significant loss of confidence in the economy and a signal that another rate reduction is probable in the near term. At this point, I’d prefer not to send a signal that another rate cut is most likely in December.

Since our last meeting, expectations were centered on no change in the fed funds target today until a string of weak housing and earnings reports moved the probabilities strongly in the direction of a rate reduction. Thus, judging from the evolution of market expectations since our September meeting, the assessment of risk language in our last statement was sufficient to convince financial market participants that our decision on the funds rate is being driven by incoming data. As I said, I think the assessment of risk statement should try to recognize the uncertainties inherent in our growth forecasts—and those uncertainties are greater than those associated with our inflation forecast—but without tilting expectations in favor of a future rate cut. As I said in my remarks yesterday, it is quite possible that we will enter another period in which headline inflation numbers exceed the trend suggested by core measures. If that is even a short-lived problem, my opinion is that—and this is based on the Bluebook version—we would be well served to note that fact by adopting the language in alternative C, section 3. However, I do note that the new language, as presented this morning, in alternative A, section 3, is quite helpful because it largely incorporates the language in alternative C. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Mr. Chairman, thank you. Two weeks ago I was pretty adamant in my own mind that the recommendation I would be offering was no change, but I have reluctantly tilted in the other direction and favor a 25 basis point cut. I have changed my mind because of really two things. First, in my discussions with our directors, in my phone calls before the meeting, and around the table yesterday, I think there has been fairly pervasive anecdotal information indicating a soft economy—not disastrously weak but just soft, certainly softer than the hard data that have been coming in. Second, the financial markets are still unsettled, and with the markets putting a very high probability on action, I am concerned about the effects of



violating that market expectation. I ask myself how big a risk it would be to violate the market expectation, and I am not really sure. But I am not sure that I want to find out either. It is just not a risk that I really want to run.

That said, it is very important that we understand—I think everybody does, but I want to state it—that there can be no equilibrium in the economy if all we ever do is follow the market expectation. We have to get out front, and we have to help define what that market expectation is going to be. I think there are a number of things that we could do coming up to the December meeting not only in the statement but also in speeches and comments that we make. I favor the alternative A language for the most part, but I am a little concerned about the assessment of risk statement. If it is really true that upside risk to inflation is mantra, then what is operative in the statement is downside risk to growth in terms of shaping market expectations about the Committee's direction in the future.

As I try to think through the downside risks to growth in the coming weeks or the next few months, we can't really do anything about what is going to happen in the remainder of the fourth quarter or the first part of next year. But when I think about the period over which the policy action makes a difference, I am not sure that the risks are really skewed to the downside. We could well see the recovery of normal market processes proceeding, plus the lower interest rates, giving more or less equal probability in the second, third, or fourth quarter of next year of a 50 basis point upside surprise or a 50 basis point downside surprise in the growth rate of GDP.

So I would like to see us work on the language for paragraph 4. Given that paragraph 3 includes risks to inflation, we might concentrate just on the growth risk, and we might say something like, "After this policy action, the upside and downside risks to economic growth in coming quarters are roughly balanced." Because I think this will be the thing that the market

keys off of in terms of a hint about our future policy or likely policy direction. I would like to see us go as far as we can in the direction of saying that we think we've done enough, at least for the time being. Let's sit, wait, and see what happens, providing that the information comes in more or less as expected and we don't have any big surprises on that.

Looking further ahead, we are at a point where we are really within reach of bringing the inflation rate down to about 1½ percent on a long-run basis. We're also at a point that, in coming meetings, we could throw that option away. If we go too far or hang on with lower rates too long, then we're going to end up eighteen months from now looking at a situation in which we have rekindled some inflation pressures. So this is a critical time in terms of not going too far and also of being willing to take back some of these cuts. I guess the way I look at it is that, if 5¼ percent was the appropriate funds rate in July or June, before the financial distress really took hold, it probably can't be too far off where we want to be once the financial turmoil is largely over. We are going to end up substantially below that if we cut 25 basis points today. So I think it's important that we not go too far and that we try to set market expectations that we have this much longer run view and that we're not just reacting to the very short run data on the real economy. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. The last time we sat around this table, I and many of you argued for what the markets described as a surprisingly aggressive 50 basis point rate cut. At that time, the baseline Greenbook forecast was for 25 basis points, 25 in subsequent meetings, and then flat thereafter. Our rationale was that we were trying to act preemptively, trying to get ahead of the curve, to limit some of the potential spillover effects from what we then believed to be a weakening housing market, perhaps a somewhat softer labor market, and

the financial turmoil. We also argued that higher-than-normal tail risk loomed out there, that it was associated with the financial market meltdown, and that it warranted aggressive action to help forestall the possibility of that. In the forecast that we submitted in September, and we all submitted a forecast, the appropriate policy varied. Nine of us submitted appropriate policy as being consistent with the Greenbook, which was 25, 25, and then constant. Of the remaining eight, seven of us had a 50 basis point cut in September, which we did. Many of those, including myself, had some further cuts to the funds rate but further out in the economy, more like in '08, later in '08, and '09, as we move toward more-stable inflation, expectations coming down, a recovered economy, and so forth. I was certainly in that camp as well, and in fact, most people ended up with a funds rate forecasted at either  $4\frac{1}{4}$  or  $4\frac{1}{2}$  percent—little differences but not much. In September, only two of us anticipated appropriate policy as dropping 75 basis points before the end of '07.

Of course, we all have the luxury, fortunately, of changing our minds in response to data and other things, and certainly all of us are doing our best to read the tea leaves of the economy, both aggregate and within our regions, and that influences the color and texture that we put around our forecast. We all work very hard at that, and I respect those efforts. But I think it is important that, as a Committee, we enforce discipline and systematic behavior on ourselves as our views evolve, particularly as those views influence policy choices. Without that discipline, without that systematic behavior, I find it very difficult to figure out how I am going to communicate to the public about what monetary policy is doing and why. It makes both our commitment and our credibility, either to inflation or to employment growth, more difficult to substantiate. It makes transparency in general more difficult. All of those things—commitment, credibility, and transparency—are important elements of what contributes to a stable economic

environment. Now I have tried to impose that discipline about policy on myself by focusing on the incoming data, trying to focus on how those data cause me to revise my outlook for the real economy, not for tomorrow or next month particularly but for the coming quarters. After all, the monetary policies we have just been talking about operate with somewhat of a lag. In that sense, I think there has been a lot of discussion by myself and others around the table that we are data-driven, that we are forecast-based in how we think about our policy choices, and that we try to take a somewhat longer run view. I think that view is important to communicate to the public.

I suspect that at the end of our last meeting—certainly I can speak for myself—many, if not most, of us probably would not have anticipated that we would cut again at this meeting. Perhaps some of you did. Certainly, your appropriate policy paths in our forecast at the last meeting didn't suggest that. But we wouldn't have anticipated cutting unless we thought that the outlook for the economy had noticeably deteriorated. So what has really happened since the last meeting? Well, the collective forecasts that we submitted—in terms of risk assessments, ranges, medians, and however you want to look at them—hardly budged. The Greenbook forecast didn't change very much. The economy generally had better-than-expected news on many fronts—not hugely better but certainly the surprises were on average to the upside for most of us given our forecast from last time. I thought we generally agreed that the risk of serious financial meltdown, while perhaps it hadn't vanished, had mitigated at least somewhat. As a consequence, neither the Greenbook nor our collective FOMC forecasts moved very much. To the extent that they did, they actually moved up a little.

Based on that forecast and on the data that came in, I'm in a very troubled position in figuring out how to justify in my mind additional rate cuts at this meeting. Had this meeting been held two weeks ago, as President Poole suggested, before the market's reaction to the write-

downs in some of the financial institutions, before the fairly dramatic flip-flop in the fed funds rate futures market about the assessment of a future rate cut, I certainly would not have been in favor of a rate cut at that time, and I suggest that each of you should ask yourself the question that Bill did: Would I have chosen to cut rates at that time? I certainly would have also resisted the temptation, arising from those data and what has happened over the past two weeks, to be in any great rush to think we needed to call a special meeting of the FOMC to consider additional rate cuts. My attitude would have been that these financial markets are volatile and they are bouncing around an awful lot, we understand that there are risks, but let's wait and get the data on the real economy and see how it is evolving and make appropriate decisions at the time. What worries me is that we run the risk of being whipsawed here by market expectations or by the financial markets that are moving around in a very volatile way. That leaves me with some concern that we may be putting ourselves in a position of either responding too much to these volatile markets or being accused by markets of being bullied by the financial markets.

So at this point, my take is to say that we are going to get a lot of data between now and December. We are going to get two more employment reports, as we have discussed. We are going to get some more information about retail sales and consumption. I would prefer to keep my own approach to discipline-based policymaking by looking at the forecast and waiting for the data to tell me whether my forecast deteriorated significantly. If it has, I will be the first to argue for an additional rate cut in December if I think it is called for.

Right now we have a difficult time justifying a decision. On what grounds are we going to justify it, particularly in a more systematic fashion? I think that creates problems for us. As we have already been discussing, it is creating somewhat of a problem in the language of the statement, and I will come back to that in a minute. But I also think that, without a very

articulate rationale in the data and in reasoning that supports a systematic approach to policy, we run the risk of being capricious or arbitrary. I think we are in a situation, as Kevin Warsh said yesterday and Tom Hoenig spoke about, when many of us view inflation risks as more fragile perhaps than they have been recently, particularly more fragile in an environment in which we are cutting rates. I think that we run the risk, more so now perhaps than in other times, that inflation expectations might be at risk. I don't want to raise those inflation expectations. They are much harder to get down. You can't act nimbly to deal with movements in expected inflation.

I also think we have to ask ourselves the question—and this ties into the balance of risks issue—if we choose to cut today when our forecast hasn't declined and suppose the data between now and December look as they have for the past six weeks—kind of in line with what we expected, not much different one way or another with nothing really falling out of bed or booming—on what basis in that meeting would we choose or not choose to cut again? At this meeting we have had a hard time grappling with the criteria that we are using. If we are not very explicit about those criteria, we could find ourselves in the same boat next time. I think this is related to Tom's point that, once we start on the path of making explicit what our expectations are or what the market is going to be expecting us to do without having a firm basis for saying we are doing this because of X or Y, we are going to find ourselves in an awkward position in December.

So I share Brian's concern about the assessment of risk language in alternative A being balanced when it seems to be out of touch with the way the Committee has described things. Again, I think that puts us in an awkward position of trying to balance those two things. So with that, I appreciate the time, Mr. Chairman. On net, I am troubled by a cut today. I would much

prefer to wait until December and to assess the data that come in. If a 50 basis point cut in December is required, so be it; but I feel as though we would have a firmer basis then for making that decision. Thank you.

CHAIRMAN BERNANKE. Thank you.

VICE CHAIRMAN GEITHNER. Mr. Chairman?

CHAIRMAN BERNANKE. Yes, Vice Chairman.

VICE CHAIRMAN GEITHNER. Let the record show I am asking this with a smile. President Plosser, you are not really suggesting that your colleagues, if they have evolved in their view, are undisciplined, unsystematic, or capricious in their rationale for that evolution, are you?

MR. PLOSSER. No, I am just saying that the communication of that rationale is tricky, and I did say that people are making their best efforts to make their forecast. I explained my view of how I discipline my forecast and how I discipline my policymaking.

VICE CHAIRMAN GEITHNER. Just to clarify about the submission you presented—you have, as I think you said yesterday, a 25 basis point cut early in the year, in the first quarter?

MR. PLOSSER. First quarter perhaps, but that was conditioned on inflation and inflationary expectations remaining well behaved.

VICE CHAIRMAN GEITHNER. Thank you.

CHAIRMAN BERNANKE. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I found the choice between alternatives A and B to be a tough call. I've struggled with this over the past week, and in the end I find the arguments for alternative A for a 25 basis point rate cut more persuasive. I have several reasons for this judgment.

First, as I argued yesterday, further action to my mind is appropriate, even leaving aside the recent financial shock. With output near potential and inflation near my objective, the stance of policy should be close to neutral, and while we can debate exactly what the equilibrium real interest rate is—that's an important discussion to me—it appears that, even after our action in September, policy is somewhat restrictive. I agree with President Plosser's view that we need to maintain some consistency in our thinking over time, and I would say that I expressed this identical view at our last meeting and said at that time that I did envision a 75 basis point cut during 2007. So my views haven't changed, and the data that we have seen in the intermeeting period haven't suddenly pushed me in the direction of this move—instead, if anything, slightly away from it, but I regard those data as largely uninformative. So my views really haven't changed about this, but it seems to me that the argument that we should be moving toward neutral does allow for quite a bit of flexibility in the timing of an additional rate cut. It doesn't have to be something that we do in October. We could do it in December, or it could wait until January. So that argument in and of itself doesn't completely persuade me that we have to do it today.

But I do think it would be prudent to act today for a couple of reasons. The first has to do with the effects of the financial shock of the summer. When we came into the meeting last month, we faced credit conditions that were quite restrictive, and our goal was to offset that shock to avoid a significant economic slowdown. I think the favorable inflation results over the previous six months did give us the flexibility to take strong action, which we did. My judgment is that we have had some success so far. Financial conditions appear to be easier than they were in September, and arguably, as I said yesterday, I think we may have roughly neutralized the shock. But an important element in our success has been the decline in Treasury rates along with the further decline we've seen in the dollar and the increase in equity prices since we last met. Those changes are supported



by the market's expectations that we will ease further at this meeting and beyond. In other words, if we don't ease today as the market expects, then rates may move up, and that raises concern to my mind about whether we will have accomplished the goal of offsetting the restrictive effects of the recent financial shock. A second reason for easing today is the asymmetric nature of the risks we face in achieving our goals. I do see some upside risk to inflation although I have not read the recent increase in five-to-ten-year inflation compensation as really reflecting a market perception of a deterioration in long-term inflation expectations. In my view, the more serious risk is the one that our Chairman discussed yesterday of unleashing negative nonlinear dynamics in the real and financial economy that could be difficult to reverse. Conditions in housing markets and their possible implications for housing prices and, in turn, consumption are at the center of these concerns. In addition, although liquidity in financial markets has improved, I think the markets are still rather fragile and subject to further sudden disruptions.

I'm comfortable with the wording in alternative A, including the balance of risk assessment. Through the fed funds rate being 25 basis points lower, I do see the upside risk to inflation as being roughly balanced with the downside risk to growth. I think the statement does give us sufficient flexibility to respond in whatever way we need to, and that includes the possibility of taking back some of this easing should there be upside surprises. I do think that it's important to signal to markets that this is not yet another step in a planned series of continuing rate cuts.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I, too, find myself torn between alternative A and alternative B and have been anguishing over them much of the last week figuring out where I come out. The economic outcome detailed in both Boston's and the Board's forecasts with no change in interest rates seems reasonable. The evidence since the last meeting indicates that

there may have been more strength in the real economy than we expected in the third quarter; and financial markets have been recovering, but they are certainly not back to normal. The risks are clearly on the downside, and our forecast expects a weak fourth quarter. So certainly an argument for alternative B is to cut when it is clearer that the fourth quarter will be weak or we have data of more-significant collateral damage from the housing sector. The argument for alternative A would seem to be that we should take out more insurance against the downside risks. The costs for such action are not great; and given the downside risk, some additional insurance is not unreasonable. However, we have discussed the modal forecast at some length, but our rigor around the tail is quite limited, making it difficult to determine how often and how much insurance should be taken out against downside risk. Thus, I prefer to wait until there are more data that the economy is weakening, which I think is likely to happen.

Just to comment on the assessment of risks—when I look at the uncertainty in terms of GDP growth, I think of the histograms. That's quite stark. If the major concern we have is downside pressure on prices of housing, which is my concern—that housing prices continue to decline and housing gets much worse—I think 25 basis points is probably a small premium to pay. But I doubt that I would change where I would put the weighting even with a 25 basis point cut. I think the housing scenario that is detailed in the Greenbook will still be there whether or not we cut the 25 basis points, and my guess is that between now and December we'll have more confirmation that it is a concern.

Whatever we do in terms of the language, we need it to be consistent and accurate, and I am a little worried about the language in alternative A being consistent and accurate with what we are going to portray in our uncertainty of risks if we show those histograms. So if we're showing the histograms, regardless of whether or not we have a 25 basis point cut, I think the alternative B

language is more consistent with at least what we put down. Unless people think that, with the 25 basis point cut, there is a big shift in the uncertainty and the risks to GDP growth, I do worry about how that will play out in the market and what kind of a tension there will be.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. If the language in alternative A, section 4—the assessment of risk—were simply about the likelihood of rate changes in either direction and didn't say anything about growth and inflation, would you view that as inconsistent with the assessments in our projection?

MR. ROSENGREN. No. If the goal is to try to convey that we aren't necessarily going to cut rates again, that is different from an assessment that there's a downside risk that housing will get much worse. So whatever we put in that should reflect what we actually want to convey and certainly shouldn't be inconsistent with histograms that we're going to be publishing at the same time.

MR. LACKER. I asked this, Mr. Chairman, because I've said this before on a couple of occasions: The awkwardness about the assessment of risk statement is that it talks about rates but it talks about them using a code about growth and inflation rather than talking about the rates themselves.

CHAIRMAN BERNANKE. Just for clarification—and, Brian, you can correct me—we are not going to publish the histogram showing the risks. We will describe verbally, generally speaking, the Committee's views. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I find myself in agreement with so many things that have been said already, no matter how the conflict may appear. This is a close call. I think it's a tough decision. I have, frankly, gone back and forth in thinking about the nuances here. It is the case that the data have been better than I expected at the time of our September meeting. The ADP

report this morning sort of continues that. It didn't have to work out that way, but 106,000 is a pretty strong number. I'm still trying to figure out exactly how to project that to payroll employment. The bad news that we have seen in terms of surveys has hardly been surprising, given our views and what we would have expected in September. So I found myself grappling with many of the ideas that President Plosser was talking about earlier in terms of data dependence and our decision and discussion in September. One view is that 50 basis points in September was seen as enough, and we would be judging our future actions on the basis of deterioration in our forecast—data that come in worse than that or some information about risks that are hard to quantify but we thought would be important. I haven't seen the impetus for that. So that's one view. Then the other view is the risk-management perspective. Maybe many people, President Yellen included, thought that more than 50 was required but only 50 in September was really achievable without startling markets. So there's a tension there.

Mr. Chairman, I really enjoyed your speech in St. Louis, when you talked about different responses to different types of uncertainty. With the sort of standard Brainard response, when the economy might be changing but we have a lot of uncertainties, we go slowly and we look at it. Juxtaposed against that are other types of risk, such as the financial risks, where things could be moving much more quickly and we don't fully appreciate the potency of policy and what we can do against certain tail risks. In that case, the robust control type of approach suggests that we should do more; then in the event that we find that policy is very effective, we can reverse it. Of course, reversing it is important—we talked about that last time, too.

It seems to me that we're close to the limits of initial risk management. That's how I've thought about this, and I thought that Governor Kohn's comment that we shouldn't view this as an open-ended commitment to risk management was very important. After all, how can you ever

argue that more insurance won't help against some catastrophe, some unforeseen tail risk that hasn't yet happened? There is a lot of value to setting a benchmark stopping point for how you would respond to that tail risk. Then if other evidence intervenes to make you reassess the likelihood of that tail risk or the cost of it, then there's reason to do more. But I think there's value to putting the benchmark out there. Another way to stop this insurance is if we end up balancing the risk. The actions taken move our inflation risk up, and we've had some concerns about that. I'm actually pretty comfortable with the inflation risks, and people have reminded me that I'm pushing this pretty far. I've taken more comfort from our ability to forecast inflation than perhaps others would—it seems to have a pretty reasonable trajectory. But as we continue to move toward more-accommodative policy in the hopes of addressing a tail risk, I think those risks go up, too.

As I looked at table 1 and I struggled with the rate decision, it seemed to me that the balance of risks was more important, and what got my attention early on was the risk assessment under alternative A. I thought it was important to project our assessment that risks were a little more balanced. I can easily imagine that we'll have reasons to reduce the fed funds rate because we think that  $r^*$  is lower, but it's purely opportunistic to take advantage of that now. We could have done that several meetings ago, but we can do it opportunistically. So I'm okay with the action of 25 basis points today, and I think that the balanced risk assessment is important. We probably do need to think about the linkages with our projections; I hadn't really taken full account of that myself. That will put me and, I hope, many of us much closer to the views that President Plosser expressed in terms of data dependence because I think that the risks will be balanced in how the data continue to roll out in the intermeeting period. So thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Mishkin.

MR. MISHKIN. Thank you, Mr. Chairman. I take the view that a cut today is justified on the basis that keeping rates where they currently are leaves us with a lot of downside risk. That's exactly what I've been hearing from other people. If there is, in fact, downside risk, why not move today? I would be very troubled by not changing and still using the language in alternative B because it says there's a lot of downside risk. Then there is the problem of why we are sitting there and not doing anything. On just the straight economic issues, I think that a cut could be justified. In particular, I was one of the people who advocated a cut at this meeting. In fact, I was being a bit—I don't know what the right word is—flamboyant when I suggested a cut of 50 basis points and then that we might move back up 25 basis points. I was trying to make the point that I was very concerned about the macroeconomic risk, the potential for a downward spiral of financial disruption leading to problems in the real sector and then feeding back on the financial markets, and really felt that we needed to keep ahead of the curve.

What is key is that the response to our actions on September 18 was almost textbook perfect in the sense that the markets really got the message that we were not going to be asleep at the wheel. As a result, the macro risk was taken out of these markets, and we achieved exactly the kind of signaling that we intended. So clearly I do not feel that we need to get ahead of the curve in that sense, the way I did last time. Also very important in my thinking about the macro issues is that I think inflation expectations are contained. We have been able to achieve that. In particular, there is a bit of concern about inflation compensation having gone up in terms of the spread between nominal rates and TIPS. But the analysis that I've heard from people who are much more knowledgeable about the way yield curves operate is that the way to interpret this is that there's an increase in uncertainty about what inflation would be. I hope that our communications strategy will help in that regard. In fact, that provision of information will actually help the markets in the

current environment. Furthermore, the Michigan survey has, if anything, gotten better in terms of inflation expectations. I always get a little nervous about asking regular people what they think because if you ask them what they're watching on TV, they're never going to tell you that they're watching Vanna White. They'll tell you that they're watching ballet or the History Channel.

[Laughter] But I don't see a problem there, and that the ECI numbers came in the way they did also gives me some confidence on the inflation front.

I am very concerned about Charlie's issue—I always call President Plosser “Charlie” because we have known each other such a long time—about being led by the markets. It is very important that we not get into that box. I worry about that, but I am a bit less worried about it in this context in that we affirmed last meeting that we were not being led by the markets because we sure as heck surprised them. So the fact that we don't surprise them this time to me does not create a pattern that we're just doing whatever the market tells us.

I also want to raise a consideration that I think deserves some emphasis, which is thinking about scenarios of what may happen. This relates to what Bill talked about, but I want to be a little more explicit. I want to ask myself what might happen as a result of our policy actions today and what the implications might be for the economy. In particular, let's think about the case of our doing alternative B. In that case, I think there is a significant probability that the markets would react quite negatively and that the macro risk that we took out by our action on September 18 might creep back into the credit markets. I'm actually very worried about the skittishness of the credit markets. When you're in a financial-disruption type of world, things are much more nonlinear. So I would have no disagreement at all with Charlie on the issue that, if you are in a normal situation, then you definitely do not want to be led by the markets at all. But I think that we do have to worry about market considerations a bit more in the current situation, when we could have a negative

reaction to what we do. That creates problems in the credit markets, and then that weakens the outlook for the economy and there is an issue about what do we do then. If we then cut in December and cut more than 50 basis points, that's really bad. Or if we don't cut and things head south, that could be very, very problematic.

But I do not think that cutting today will have very negative effects on inflation expectations. However, I do think that the issue of going forward is very important, and this relates to the statement. I strongly agree that we need a much stronger balance and an indication that our action today—if we do what I suggest, which is to cut 25 basis points—does not mean that we expect to cut at the next meeting or further out. We really need to make that very clear. The statement will be one part of it, although I worry very much about the issue that we always put much too much weight on the statement and that we don't have other means of communicating. I'm not sure what to do about this; I've been thinking about it and haven't come up with any good answers. But there are issues in terms of how other central banks communicate things beyond the statement that are hard to communicate with fifteen words rather than something more extensive.

So my view—and it is reflected in my projections—is that, if we cut 25 basis points, it's not clear to me that the balance of risks is so much to the downside. I think the risks to the downside have been very substantially eliminated—not that they aren't still there to some extent. I think they are but not really as much, and I think that is true of the actions on September 18 and today. Because I'm never very precise in my language—as you know, I tend to say pitiful things—somebody will craft this much better than I do. But I'm wondering about the assessment of risk. Let me make a suggestion, although I'm not sure this is the best way to do it. We need to emphasize that it's not just the upside risks to inflation but also the downside risks to the economy that have lessened. It is also important when we have a 25 basis point cut not to say to the markets



that we're so worried about the economy. One possibility might be, for example, to say that "the Committee judges that after this action the upside risks to inflation roughly balance the somewhat reduced downside risks to growth." So we would not be saying that there isn't some downside risk but that it's not really as strong as we thought. It's certainly not as strong as we thought on September 18. But I think that, with this kind of reduction in rates, it would reduce the risk. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. It's a little past 10:30. Coffee is available. Why don't we recess until 11:00? Thank you.

[Coffee break]

CHAIRMAN BERNANKE. Let's recommence with President Fisher.

MR. FISHER. Thank you, Mr. Chairman. Flying home last time I thought it would have been nice to have been at the Bank of China and cut 37½ basis points. [Laughter] I don't want to repeat what has already been said at the table because so much has been said. But it is important to note that, since we last met, the data on the economy are stronger. Some of us have expressed concerns about inflation. Credit markets, as I said yesterday, are at least in remission, if they haven't fully recovered, and are in better shape than they were. Listening to the arguments, I took particular note of President Poole's comment that he's not sure that he wants to find out what the market reaction would be if we did not cut rates 25 basis points. I lived through three market corrections as a market operator, 1974-75, 1987, and 2001. I lived through a dollar crisis as a public servant in the U.S. Treasury. And I haven't heard a person yet talk about some of the risk. The Riksbank, by the way, last night and the Mexicans raised rates; but more important, the Europeans are talking tough because of their concerns about inflation. I am worried about the pernicious

effects of inflation. I think President Hoenig hit the nail on the head when he said it's easier to lower than to raise.

I would simply counsel, since I don't have a vote, that we should consider the value of keeping our powder dry. It's very dangerous in my opinion for policymakers to be driven into a cul-de-sac by futures markets. In response to the question I asked earlier, the markets have been all over the lot. I am worried that we have too much of a discussion about what markets expect of us since the fed funds rate is designed—as you have made very clear in your speeches, Mr. Chairman—to affect the economy and should be so driven. So were I to have a vote today, I would be thinking along the lines of Presidents Hoenig, Plosser, and Rosengren in terms of their expression. Everybody has been grappling with this issue. We would make a great wrestling team. We are thinking very hard about these matters. But in the balance of risks that I see, given the improvement in the data, I'm tempted to consider the value of another cut as insurance against weakness. Yet we took a huge step last time—we took out a double-barreled shotgun—and it seems to be reflected in the data that the staff projected. I'm a little worried not so much of being accused of being asleep at the wheel but of having our foot too heavily on the accelerator if we cut 25 basis points. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I, like several of my colleagues who have gone ahead of me, find myself torn between alternatives A and B. I also wrestled with many of the issues that President Plosser articulated so well. I left our September meeting thinking that the 50 basis point cut pretty much put us close to where we needed to be given our outlook, and my outlook hasn't changed much in the past six weeks. As I said yesterday, I'm not certain about whether the weakness that I'm hearing or have heard about during this intermeeting period is simply

evidence of the business conditions that are unfolding as I thought they would or whether there is more weakness than I anticipated in September and more weakness than I have reflected in my projection. The Committee has said repeatedly and for good reason that our decisions are going to be dependent on the incoming data, and as many have already said, the data seem to be confirming my outlook. But financial markets do remain on edge. Moreover, many of the incoming data are backward looking and, hence, don't provide me with great comfort when we're trying to ascertain what might lie ahead. The projection that I submitted for this meeting, as I said yesterday, is rather fragile, and it wouldn't take much additional market turmoil or deterioration in household and business confidence to push my near-term growth outlook even lower. So I think this risk is the predominant one that we face today, and it is a risk that has weighed heavily on my deliberations for this meeting.

The assessment of risk language in alternative B addresses these concerns, and I was contemplating supporting no change in the fed funds rate and the language in alternative B. However, in the climate that we find ourselves, I believe that just saying that the risk to the outlook is to the downside isn't enough. I do think that we should be taking out some insurance against possible further deterioration in the near-term outlook. So I support a 25 basis point cut in the fed funds rate target today, and I support the language that's embodied in alternative A. I believe that the language does acknowledge the likely slowdown in the economic expansion. It also acknowledges that, if we take this action today, the risks are roughly balanced, and importantly, it suggests that further policy easing may not be forthcoming. I also like the language that was added regarding the recent inflation numbers. Finally, as Governor Mishkin pointed out, it is difficult to express all of these issues in our short statement. It seems to me that we can draw some comfort from the fact that the minutes will be providing the public with a greater understanding of the

different views that were expressed today and some of the challenges that I wrestled with. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. As I commented yesterday, I think there's a respectable chance that by the middle of next year or so the economy will be growing again at a reasonable rate, and because of the lags between our actions and their effects on the economy, there is not a lot we can do about what happens in the intervening period anyway. It seems to me that those kinds of considerations are at the heart of something like the case for alternative B. Leave well enough alone. There has been some progress in the financial markets, and that step—that is, taking no action today—would in my view be consistent with long-term achievement of the dual mandate. But I am an economist. So on the other hand, financial conditions are still unsettled, and it's difficult to know the degree of restraint that changes in the cost and availability of credit relative to conditions back in June will have. It might well be prudent—this is the case for alternative A—to take additional steps today to err on the side perhaps of doing too much since it seems to me that it is inevitable that a lot of uncertainty is associated with the economic outlook.

Weighing those two cases, I come down in favor of alternative A but with misgivings, and let me share those misgivings. I think that there is some chance that financial conditions will remain unsettled for several more months at a minimum, and so in some sense that part of the environment may not change very much in the next few months. You pointed out yesterday, Mr. Chairman, that an important ingredient in the Greenbook forecast is a cessation of the drag from housing roughly around the middle of next year. Let's suppose that, in fact, turns out to be precisely correct. That's all well and good, but we won't recognize that it has actually happened with any degree of confidence, given the flow of data, probably before August or September at the earliest even if the

anecdotes get a little more positive. So I can see a situation in which the circumstances we confront over the next series of meetings don't look very different from the circumstances we're confronting today. I think we have to be very careful of not letting good intentions on a decision-by-decision basis get into what turns out to be a policy error as a consequence of an accumulation of those kinds of decisions. It's the time-inconsistency problem obviously, and that gives me some pause even though I come out at the moment in favor of alternative A.

As far as directive language, for a variety of reasons that others have expressed, I am uncomfortable about characterizing the balance of risks the way they are characterized in alternative A. I think that a way we might consider going, although it's not the most elegant solution, is perhaps just to drop that first sentence under alternative A. We succeeded at the last meeting in making it clear that we were data dependent, and you had significant swings in probabilities of funds rate reductions over the intermeeting period. I think this would leave us in that circumstance. As President Pianalto pointed out, we have the minutes coming out, and we may well have the communications package, including the narrative, coming out with it. Obviously there's a three-week lag, but it seems to me that that would be an effective way of communicating what we want to communicate and perhaps of putting the attention on that communications package, which I think would turn out to be valuable.

CHAIRMAN BERNANKE. Governor Mishkin.

MR. MISHKIN. Gary, I'm a little puzzled here. I'm not sure I understand. What I understand from your reasoning is that the key issue is that you don't want to give an impression that we are going to keep on cutting.

MR. STERN. That's right.

MR. MISHKIN. So if you take that first phrase out, you've taken out any issue of balance of risk. My view is that the markets would interpret this as actually indicating that the Committee would be more likely to cut in the future.

MR. STERN. Well, I don't know. If you look at the language from the last meeting, we were careful not to pre-commit to anything, and it seemed to me that the markets understood the data dependence. I forget the precise numbers, but I guess the probability of a  $\frac{1}{4}$  percentage point cut ranged from 30 percent to 100 percent, or more when you think of it in terms of bigger cuts, too. It seems to me that the proof of the pudding is in the eating. That seemed to work out okay.

MR. MISHKIN. But in this case, if we do alternative A, we will have cut.

MR. STERN. Well, I don't follow that. We cut even more significantly at the last meeting.

MR. MISHKIN. Thank you.

CHAIRMAN BERNANKE. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Let me be the most recent but, I guess, not the last to say that this is a close call. I suppose I take more comfort in that than some around the table because I am pleased at the progress though it is not perfect and we're not even back to an honest view of normal in the financial markets. That it's a close call suggests to me that the data in the financial markets are normalizing. I guess the alternative of a close call would have been to have this be an easy call, and I suspect that the only way this would have been an easy call would be if we continued to have bad data and bad sentiment in the market. So I think we're in the realm of a close call and we shouldn't completely rue that situation. Again, that's probably a function of the resilience of the economy, the resilience in the markets, some time and patience, and maybe even a little good monetary policy. So I'm okay with that, I think.

The judgment that we make on moving or not moving  $\frac{1}{4}$  percentage point today matters, but it strikes me as being considerably less important than what the future path of policy is expected to be in the capital markets. So I think that the most important judgment we make is in the fourth paragraph rather than the first paragraph. Let me spend a moment on what the financial markets are telling us with a degree of certainty which, speaking for myself, is quite surprising. Again, I think they have responded to real data over the past couple of weeks. They haven't changed their probabilities based on utterances from the Chairman or from any of us, and I take some comfort in that. I might disagree with what they're saying, but I don't think that they're just giving us a mirror image of our own views. So I take what they're saying and the certainty with which they have taken on board that we're going to move today. It's not determinative. It's not dispositive, nor should it be, but the debt capital markets, at least, think that the economy is worse—worse than the Greenbook and worse than many of us feel. Again, I would say that I have to take that on board without giving it too much predictive capability.

I think that Brian is right—given the fragility in the financial markets and given the surprise that we had for them last time, I wouldn't want our judgments today to add to that volatility, which I think would be quite possible. In sum, I would say that I support alternative A as written on this revised page. I think that, absent having strong language in alternative A, section 4, it would look to some as though the markets dictated this outcome. I think A-4 and robust balance of risk language is important so that the markets don't believe incorrectly that we succumb to what their wants are. I think that previously, including at our last meeting, when we spoke about uncertainty, they seemed to understand what that was—that it wasn't that we're just calling it uncertainty but we really have cuts ahead. For better or for worse, they've now learned a lesson. Uncertainty with even pretty good data led us to cut this time, if we end up adopting alternative A. So if we use that same

uncertainty language, I don't think it would have the effect that it had last time of letting folks be on both sides of the bet on whether we would have continued actions. So I'm comfortable with alternative A, paragraph 4. It is a way of addressing market expectations and addressing our uncertainties by insurance, but being very clear to the markets that they ought not prejudge nor have we prejudged the outcome next time. The references to inflation risks there and in alternative A, paragraph 3, are useful to address some of the broader concerns we have about commodities and the foreign exchange value of the dollar. So with that, I think that alternative A is the right thing to do and that it does preserve for us plenty of ability to call it as we see it when we meet next. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you. As I discussed yesterday, I take very much a risk-management approach. But I also like the way that President Evans characterized that risk-management approach as your having to think about the costs and the benefits and very much focus on the potential costs. So in thinking about the best way to go, I think about if we do or don't move, then what are the downside risks to each? We've seen, as many people have said, a lot of progress in the financial markets. We have also seen a little backing up of some of that progress and a flattening out over the past couple of weeks. In particular, the one set of markets that we haven't seen as much progress in as certainly I would like is housing-related markets. That is for me the most direct channel between financial turmoil and the real economy.

As I described yesterday, my tail risk scenario is sort of a slow-burn scenario. It is not one in which this financial turmoil will get out of control and we will have an incredible mess so we need to cut interest rates to prevent it. I think that was more the concern and focus in our previous meeting. We have seen improvement, although I don't think we've seen normalization, particularly



in the housing markets. Given that we've had some but not full normalization and then given that we have resets coming and the tightening of credit standards, the elimination of a lot of subprime lending, the rules that we are going to put out, and the rules that the Congress is considering, regardless of how carefully we craft them or whether or not the Congress makes progress, the effect on the housing market will undoubtedly be somewhat chilling. So I see a potential slow-burn scenario in which it is valuable to be buying some insurance against that as early as possible. These problems may be peaking toward the middle of next year, because that's when they have the most potential to have a negative effect on housing prices, which, as others have described, could have this sort of simultaneity issue or vicious cycle aspect that could lead things to go down.

Given that we have those conditions and we have that potential going forward, it seems worthwhile to buy that insurance now. What is the cost of doing that? Of course, it is in terms of inflation and inflation expectations. As the markets have changed their expectations about what we're likely to do at this meeting and even as they have dramatically changed their path of future policy moves, there's very little evidence that inflation expectations, at least up to the five-year horizon, have moved up significantly. There is a question of how to interpret that longer-term change in inflation expectations; I take it very seriously, and I think we have to try to understand it better. But I don't think that there's an enormous cost in terms of moving now versus six to nine months from now to buy more insurance against what I see as a challenge from the recent financial market turbulence. I think there is also a concern, which President Poole raised, that if we have a fairly large surprise to the markets, it could reduce or even reverse some of the progress that has been made in some of the markets, potentially forcing us to move more than we would like at the next meeting.

So that said, I think it is very important and very valuable that we make a move now. As other have said, it is a close call because we have to worry about the cost with respect to inflation. One way to contain that cost, as a number of people have said, is to clarify the path going forward, to show that what we're doing now is responding not to current data but to the forecast about the data. Obviously when the markets were expecting GDP at 3.1 and it comes in at 3.9, we're not saying that we're reacting to current market data by making a cut. But we are thinking about the potential future effect and then trying to give some guidance through a balance of risk statement. I'm open to a modification of that statement to try to convey that we think we don't necessarily need to do more with respect to the challenges that are coming now but we're going to continue to remain vigilant and look at things like the housing market and other markets that have potential to have negative ramifications for the whole economy. Thanks.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. I think the economy is slowing. Even the nonhousing part of the economy is slowing a bit. Housing prices are still obviously sliding down. We don't really claim to know much about where they're going to end up or where we are in that process, but it seems that they are falling and probably at an accelerating rate. Our modal forecast—"our" meaning from the submissions—is for an economy that slows further and runs below trend over several quarters. But if you just look at the size of the bars on the submissions, the size of that bar about downside risk to growth is very high, much higher than the bar about upside risk to inflation. There is a huge amount of uncertainty about what equilibrium is and where short-term interest rates should be over time. But I think it is fair to say that we are now at the high end of, if not slightly above, most of those estimates of where equilibrium is. Therefore,

it seems to me sensible that most of our submissions had a downward slope to the path of the fed funds rate going forward over this period.

The question then is not principally whether to move but when and what signal of a change or no change should come. I think it is a very close call, and everything that I say I say with a lot of unease and discomfort. If the choice is to stay firm but to signal more explicitly than we did in September that we're likely to move further, that seems to me just a bad choice. I think it is likely to amplify many of the risks that you are all worried about and it probably would make people more tentative about coming in and doing what they're going to do to let this thing work through the markets because they will be living with our acknowledgement of substantial downside risk without action and uncertainty about whether we're going to move. I think you might argue that a decision not to move with an explicit asymmetry in the balance of risks to growth would lower the path going forward and add to that uncertainty in some sense.

I do not think that the markets are so fragile now that they could not take an adverse surprise of this magnitude, even though it is a very, very large adverse surprise relative to recent history. I don't think that's a good argument for moving. I think the best argument is that we're still in the midst of what is a very delicate and consequential asset-price adjustment in the U.S. economy with a fairly dense, thick, adverse tail on the potential implications about the evolution in housing. The Chairman spoke eloquently early in the year—I think it was early in the year, but maybe it was late last year—about the pattern of history and the acknowledgement that weakness tends to cumulate, and you don't really have a lot of experience with sustained periods of below-trend growth without falling into a more substantial rise in unemployment rates. Those risks have to be substantially greater when you have an economy going through this kind of asset-price adjustment.

I found these charts discouraging, not reassuring, in the sense that we're anticipating a slowdown in the rate of growth of credit for the economy as a whole that's comparable to '01. I think the pressure on bank balance sheets is probably—it's hard to make these statements with any certainty—greater than it was in '01. At least a reasonable expectation is that it's going to be bigger than it was in hindsight in '01, and I think you have a much more substantial impairment to the functioning of what Kevin calls debt capital markets—the industry around the design of securitization and structured finance, et cetera, which has been so important to the way credit gets originated and moved. That disruption could take a long time to resolve, and I think that just has to amplify the density of the adverse tail and the growth outcome, certainly with more uncertainty at this time.

I think that it is hard, but the better course of valor is to move today, and I like the language in alternative A. Let me just go quickly through the arguments against it that I find most compelling. The best argument against is the fear that many of us spoke about—that even though the inflation numbers have been reasonably reassuring and we haven't seen substantial erosion in inflation expectations that we can measure, there is a bit of deterioration in the feel, in the psychology. We have to be very careful that we don't add to that through our actions or people's expectations about how we're going to behave going forward. But we should take some comfort from the fact that the market is pricing in more than 100 basis points of easing over the next two years. You have to believe that a fair amount of that is already reflected in breakevens, reflected in what people are willing to pay for insurance against adverse inflation outcomes, and reflected in the dollar. It doesn't mean that if we validate part of those expectations you won't see erosion, but we should take some comfort from that.

Just one more thing. We have been through three years of very substantial relative price shocks in energy prices, commodity prices, and some other things. Those hit an economy that was growing over the period above most estimates of potential, and we have had pretty good performance of underlying inflation and inflation expectations in that context. So even though we look forward and we see what's happening in commodity prices, energy prices, and the dollar as posing some potential risk of upside pressure on input costs, that is hitting the economy in a very different state. The experience of those last couple of years should give us a fair amount of confidence in the judgments we bring as to how we think about inflation going forward. I think we have less uncertainty around an inflation forecast than we would have had two or three years ago and still substantial uncertainty around the growth forecast inevitably given what the economy is going through. The balances suggest that it is better to move today because of that. As I said, I'm comfortable with the language in alternative A. I would be comfortable with Governor Mishkin's amendment to A—I think that helps a bit. I have a lot of sympathy for all the arguments against the first sentence in alternative A in any form, but on balance, I would say that we just don't want to take the risk that, by omitting some statement like it, we cause people to price in a steeper slope to that path going forward. It is something that we should try to avoid, and the best way to achieve that is the language in A. Thank you.

CHAIRMAN BERNANKE. Thank you. Thank you all. Well, it has been said many times, but this is very, very close, and I've thought about it quite a bit, obviously. I have a lot of sympathy for President Plosser's very clear analysis. There have been good data since the last meeting. We have talked about the importance of spillovers. We have not so far seen evident spillovers from housing into other sectors. We did take a preemptive action in the last meeting. Inflation is a concern. I think not immediately, but some of the factors like input costs are there, and market

expectations alone are obviously not a reason to move. All of those things are valid, and I have thought about all of them.

So why do I favor a cut? Most of the arguments have been made. The downside risks are quite significant, if the housing situation, including prices, really deteriorates. I think part of the difference between what the market sees about housing and what we see is that we are a little more sanguine about price behavior than the market is, and a decline in prices has effects both on consumers and on the credit system. So I think that risk is fairly important and may swamp some of the other issues. There is some new information that is relevant. The senior loan officer survey and other information suggest that credit conditions are tightening and that this will have an effect, I believe, in some significant markets, certainly including housing. Other information, like consumer sentiment and consumers' views of the labor market, suggests some slowing and some weakening. The decline in sentiment in the markets in the past two weeks is very interesting. On one level I feel as though we failed to communicate somehow; however, I don't know exactly where the mistake was. The markets seem to be responding to information about earnings reports and projections of future activity and so on, both in the financial sector and in the real sector, and as a number of people have said, I don't think we can entirely ignore that information. So I think there are some good reasons on the real side to take out a bit more insurance, as has been said. I agree with the Vice Chairman that the credit markets probably could stand the surprise, but they have become somewhat more uncertain, and I think their basic problem is macro uncertainty. It has to do with concerns about tail risk, and that is something that we can, I think, address a bit.

The point has been made a number of times, first by President Yellen, that the current rate could be construed as being slightly restrictive and that creates an argument for a somewhat lower

rate. An additional argument is that the core inflation rate has come down some since last year, and so the real federal funds rate on that basis has gone up.

Finally, an argument that I would bring to you is about tactics, and the Vice Chairman also alluded to this. Most of the paths that we submitted include a path for policy that is perhaps slightly lower than the current one, and the question is how we do this. If we take alternative B, which I think is the most obvious alternative, on the one hand we don't take an action and on the other hand we express alarm about the economy and say we'll probably be cutting in the future. That makes calibrating how the longer-term expectations will respond to that very difficult. I think it would, on balance, tighten expectations a bit because we didn't act, but it does create some uncertainty. The advantage of alternative A, even as we take a cut, is that we will, I hope, curb expectations for sustained additional cuts through several mechanisms. First, in the economic growth paragraph, we have switched language from actions "intended to help forestall"—very indirect—to "should help forestall," suggesting that we are now more confident in our ability to prevent bad outcomes in the economy. Second, we have—and this will certainly be noticed—taken note of energy and commodity prices, among other factors, and we have highlighted our concerns about inflation. Third, the rough balance of risks certainly indicates that we are not eager to cut again quickly unless the data clearly support it. So a lot of this is tactical, about how to take control of expectations—you know, how to manage the market's views of our policies. And I just felt a bit more comfortable with taking the action but then using that to recalibrate our balance of risks. For what it is worth, 75 basis points of easing has been pretty much the standard Fed medicine for financial crises ever since 1970 or so; in that respect we are in good company. That's my recommendation—25 basis points with alternative A. Any questions or comments?

VICE CHAIRMAN GEITHNER. With the Mishkin amendment or without?

CHAIRMAN BERNANKE. What exactly was the Mishkin amendment?

MR. MISHKIN. It was to add a phrase before the downside risks to growth to say, “The Committee judges that the upside risks to inflation roughly balance the somewhat reduced downside risks to growth.” It would give a flavor that, in fact, our actions have reduced the downside risk.

CHAIRMAN BERNANKE. I worry about that. For example, by saying that the action “should help forestall” instead of “is intended to forestall” I think we address that.

MR. MISHKIN. I didn’t feel strongly about this. It was just maybe I’ll do it in speeches afterward.

CHAIRMAN BERNANKE. The other comment that came up, I think President Hoenig and President Stern mentioned it, is not exactly softening but emphasizing the uncertainty that surrounds our judgment. So another possibility, and I have always regretted making suggestions on the statement, is that we could take the first sentence from the September paragraph 4, cut out the phrase “since the Committee’s last regular meeting,” and say, “Developments in financial markets have increased the uncertainty surrounding the economic outlook. However, the Committee judges that . . .,” and we could put that at the beginning of the assessment of risks. Is that as appealing? I don’t know. I guess my prejudice is, unless there is strong sentiment, to stay with what we have because that is what people have talked about.

VICE CHAIRMAN GEITHNER. I think the problem with that is that developments of financial markets on balance since the last meeting have been reassuring. The panic has receded. The disruptions are more contained, and so I don’t think that works.

CHAIRMAN BERNANKE. Okay. I withdraw that. Any other comments? All right. If not, Ms. Danker will call the roll. Let’s just note for the record that for the first time we will be voting on the entire statement.



MS. DANKER. I will start with the directive from the Bluebook. The language is as follows:

“The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 4½ percent.”

Then the statement, which I will not read in its entirety, is as written under alternative A in the revised October 31 table that was handed out.

Chairman Bernanke	Yes
Vice Chairman Geithner	Yes
President Evans	Yes
President Hoenig	No
Governor Kohn	Yes
Governor Kroszner	Yes
Governor Mishkin	Yes
President Poole	Yes
President Rosengren	Yes
Governor Warsh	Yes

CHAIRMAN BERNANKE. Thank you very much. I need to have the Board for a moment.

[Meeting recessed]

CHAIRMAN BERNANKE. Let me just address quickly the last item on the agenda, which is communications. On October 19, you received a memo from the subcommittee that describes the latest round of changes to the projections. I won't repeat what they are, but if there are questions, we can take them. I don't believe we received any comments on this round. I'll talk in a moment about getting this ready for prime time. But what I'd like to talk about now is, as I discussed in September, asking the Committee for a consensus to release these projections. They would be

released with the minutes of the current meeting on November 20, which is one day less than three weeks because Wednesday is the day before Thanksgiving. So we would release it on Tuesday.

The necessary explanation of the projections—what they mean and how to interpret them—would be in a speech that I propose to give on November 14. That speech would be preceded by a press release from the FOMC describing the plan in general terms. You received copies of the press release. Michelle, do we have other copies? Does anyone need it?

MS. SMITH. It was not changed from what you received. I have extra copies if you need one.

CHAIRMAN BERNANKE. All right. If anyone needs a copy, Michelle is happy to give you one. I would talk in general terms about this approach, why we're doing it, what the implications are, and so on. I'd be happy to share my draft remarks with anyone who would like to look at them. Let me be clear—I do not plan to reveal any of the data from the projections. They would be released to the public for the first time in the minutes, and so it would obviously be very important for everyone not to release that information. President Plosser.

MR. PLOSSER. Your speech is November 14?

CHAIRMAN BERNANKE. My speech is November 14, and the release of the minutes will be on November 20. That would give people some time to digest the ideas. Yes?

MR. LACKER. And the press release?

CHAIRMAN BERNANKE. The press release would be on the morning of November 14 before my speech. On previous occasions when the FOMC has announced communication changes, they have followed the meeting by some weeks. It's not unusual for that to happen.

There are questions about timing, whether we should think about doing it later. We had some discussions about this. My own view is that this was the most convenient time. January

would run into the monetary policy hearings, for example. If there are serious problems in the markets or anything like that, I am prepared to add material about the markets or to substitute another speech—to do whatever is necessary to address that issue. But I do think that, besides the natural rhythm and the fact that we are about as far as we are going to get in fine-tuning this, the fact that this has appeared in the press suggests that we should just go ahead and get it out soon, if possible. In a moment I'm going to ask you for your comments, and then I'll ask you for your consensus—first, on releasing the material and, second, on the speech and the rollout of the press release.

Let me just say that, as Brian indicated, we do have until tomorrow close of business to revise our projections. This counts. This is the real thing. Please take a look at your projections in light of this morning's data and in light of the discussion today. In the future we will not be doing this every meeting, only four times a year. So in that respect it won't be such a burden as I know it has been. So I urge you please to do that. Let me now open the floor for any comments or questions about projections, the rollout plan, or anything. President Poole.

MR. POOLE. I have two comments. Brian talked about the skewness, which I gather we are going to describe in words but not use the histogram. I have the following question about the skewness. I was one of those who said “broadly similar,” and here's how I would look at it. You start with some point estimate. Let's make it simple—next year, fourth quarter to fourth quarter. You ask yourself how far down you would have to move the point estimate such that the probability to the right and the left would be about the same. If the amount that you would have to move that point estimate is a fraction of a standard error, then I would interpret it, roughly speaking, as that there are symmetrical risks. I just have the suspicion that people who are talking about “weighted to the downside” are in a way mixing up the first moment and the third moment of the probability

distribution. So I worry that, as I think Brian was worrying, that this will give a message that's going to interfere with the communication that we also want to offer about the policy path. That's the best way I can think about it—to ask about how far you would have to move your point estimate to make the probability to the right or left roughly the same. I would also note that the Greenbook, for example, has reduced the point estimate for next year  $\frac{3}{4}$  percentage point from June to now, roughly speaking. Maybe I can even ask Dave about whether he thinks the distribution around the current point estimate is very skewed, and I could also go on and ask how far down he would have to move that point estimate to make the probability to the right and left about the same.

The other point that I want to make—and it is really in many ways a much more important point—is that, when we disclose the 2010 inflation projection and presumably, Mr. Chairman, at the February monetary policy hearings—assuming that some member of the Congress actually asks you a question related to monetary policy, which is not a given—[laughter] a very logical question either then or sometime in the future would be where you personally stand, what your number is in that projection. I would very much like to know that answer in advance because I would be more than happy to conform my estimate, which I regard as a target, to the number that you would throw out. I think there's an issue here. In an inflation projection for 2010 that varies from roughly 1.5 to 2, the numbers are materially different, and I think that question is going to come back at us over and over again. So I won't say any more about that, but I do believe that I would hate to be in a position of having to explain why my number is different from yours.

CHAIRMAN BERNANKE. Well, let me say first on the mode and the median, you make a good point on the first issue about risks. The question to ask yourself is, Given your most likely forecast, on which side are the largest and most costly deviations most likely to occur. In which direction are the risks skewed? That is the way to think about it.

MR. POOLE. Well, I would keep separate the cost from the distribution itself.

CHAIRMAN BERNANKE. No, I don't think so. I think you ought to put in some costs—

MR. POOLE. I'm not saying I would ignore the costs, but maybe we need to be clear about what this probability distribution is supposed to mean. I thought that this was supposed to mean simply the weights that I would give on various possible outcomes in terms of the probability that the forecast might be 1 percentage point below or 1 percentage point above the central tendency, however I described it. Now, I agree that a full analysis requires that you also add the costs to those, but I would interpret that as not being part of the projections process for GDP and inflation but rather you'd fold that in through the policy decision as to how you weight those various possible outcomes. But I have interpreted it all along as being really a statement about your probability distribution on the outcomes unweighted by the severity of the outcome.

CHAIRMAN BERNANKE. Okay. I think that the answer would be pretty similar in either case. So we can discuss this at another time. On your second question, I think I'm kind of a special case because people will overweight what I say if I give a number. So I would not give a number, and what I would say is that what matters are the views of the broad Committee, and I don't want to distinguish myself from the broad Committee. It is a Committee decision process. If individuals want to give their numbers, I suppose that's okay. But I would urge you to consider the externality a bit, which is that there will be some desire to figure out who is where on the distribution in order to assess who is holding which type of policy preference and so on. Certainly many of us have often given our views of what price stability is and so on. I don't think I want to prohibit that, but my recommendation would be to be a little fuzzy, a bit careful about being too precise and too sharp about that number.

MR. POOLE. Well, it won't really matter very much with me because I will be out of here before too long, but I have long been on record as bringing the number down, and so I can't back off that. That's what I believe, and so I'm going to keep that.

CHAIRMAN BERNANKE. That's fine.

MR. POOLE. But I'll disappear from the calculus next spring anyway.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Mr. Chairman, I appreciate your answer. The one worry I have had about this exercise, which is much better the way it is now expressed and presented—I think it is ready for prime time—is that we might be divided as to our individual instincts. We do operate as a Committee. We have said this a million times, but I'd like to reiterate it. To me it's the last bastion of integrity here in Washington. To go down a path of who is saying what just threatens to tear us apart, and I would urge your response on everybody else as well. Thank you for the spirit in which you answered that.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. No comment.

CHAIRMAN BERNANKE. Anybody else? President Lockhart.

MR. LOCKHART. Has there been any reaction to the Greg Ip story? Have we received any feedback from the principal audience for the projections?

CHAIRMAN BERNANKE. Yes, and there have been no problems. The response has been positive.

VICE CHAIRMAN GEITHNER. Mr. Chairman.

CHAIRMAN BERNANKE. Yes, Vice Chairman. I'm sorry.

VICE CHAIRMAN GEITHNER. I want to come back to President Poole's question. President Poole, you said a fraction of a standard error. How large a fraction of a standard error would you want to use as a basis? Really, I'm not sure what the standard error is in this context. But just in terms of how you think about this, how large a fraction of the standard error?

MR. POOLE. Well, I was one of those who put down B—that both the distribution and the skewness were broadly similar to the past twenty years. So I came out that way. I was trying to offer a way to think about this issue and, for those who believe that the probability distribution is way over on one side, a way to think about it: How far would you have to move that point estimate? I wasn't trying to give the answer; I was trying to give a way to approach the question.

VICE CHAIRMAN GEITHNER. Mr. Chairman, maybe we should clarify just this one point. Did you leave the question about—I don't know what this chart is called; it is not going to be in the addendum to the minutes—what those bars show about the balance of risk? Is it about just the probability of the outcome or about the probability of outcome and the costs or consequences of the outcome?

CHAIRMAN BERNANKE. May I ask the staff, do you have institutional memory on this question?

MR. MADIGAN. I am not sure what the question is exactly. What is the question?

CHAIRMAN BERNANKE. Is the skew that determines the risks simply the probability of outcomes, or is it the probability weighted by the cost of certain outcomes?

MR. MADIGAN. Well, I think it is a matter of how the members interpreted it in responding. [Laughter] The memorandum to the Committee asks whether the risks around your projection for each variable are weighted to the upside, weighted to the downside, or broadly balanced.

MR. KOHN. I think the balance of risk statement in the announcement has had the utility weight on it; there have been times when the Committee was more concerned about falling to one side or another. But I at least interpreted the forecast as simply whether there were skews to one side or another. If I may have the floor to talk a bit to President Poole's point. I think we do say in the statement that there are upside risks to inflation and downside risks to growth. So I would be concerned if the whole Committee shifted to the middle because then I think we would be contradicting the announcement that we made, so I think your point is good. I mean, you ought to be sure that you really do think there is downside risk to growth and upside risk to inflation, or whatever, and adjust it for the policy choice that we made today.

CHAIRMAN BERNANKE. The utility cost is relevant in the statement, and you can't take a balance of risks unless you compare them in terms of cost. There is no other metric by which you can compare them. So in that case, it has to be cost-weighted. But I think it is more or less equivalent—the univariate answers you are giving about mode versus median.

MR. POOLE. But if we view the projections as being a statement just about the probability distribution of the various outcomes, this might be an important point for you to explain in the speech that you give because the whole thing is labeled projections—I guess we have been calling it a “projections exercise”—and so I have interpreted that as a discussion of the numbers.

CHAIRMAN BERNANKE. I think we won't go too far wrong by interpreting it as a probability distribution in the shape of the probability distribution for outcomes.

MR. POOLE. That's the way I have interpreted it.

CHAIRMAN BERNANKE. Okay. President Lacker.



MR. LACKER. At the risk of introducing further moments of the probability distribution into the discussion, have we been instructed as to whether our projection is a mean or a maximum-likelihood estimate?

CHAIRMAN BERNANKE. I think our standard procedure is that it is a modal.

MR. LACKER. A maximum-likelihood estimate.

CHAIRMAN BERNANKE. Yes.

MR. MADIGAN. The memorandum to the Committee says, "Please provide your projections of the most likely outcomes," et cetera.

CHAIRMAN BERNANKE. I'm sorry, President Plosser, we have kept you waiting.

MR. PLOSSER. It's not important. I don't have any comments. I just wanted to say that I think the staff has done a great job and the subcommittee has done a great job. This is a very important step forward for us, and I am strongly supportive of it. I want to thank Governor Kohn, Janet Yellen, and the other members of the subcommittee for getting us here and you for taking this step forward. I believe that, as we go through this time after time, it will be refined. We will stumble over a few things and the language is going to be tricky, but I just want to commend the Committee for taking this step.

CHAIRMAN BERNANKE. Let me also commend Governor Kohn, President Stern, and President Yellen for their excellent work. We really appreciate it. Governor Mishkin.

MR. MISHKIN. Thank you. I just want to return to the point that the Chairman, President Poole, and President Fisher raised. In my conversations, people have expressed different views at this juncture about what the optimal long-run inflation rate is. People know that I am a 2 percent kind of guy, and I know good people here who are 1½ percent kinds of guys. But in talking to people about this, I hear a lot more consensus and that people don't feel

strongly. So I would be in concert with what President Poole said. If the Chairman said, “How about X?”, I would be more than happy to say, “Giddyap, I am with the Chairman.” So, again, my colorful language. But the key point here is that I think it would be very helpful at this juncture that people really not emphasize differences but that, in fact, there really is consensus on this Committee. That takes one of two forms. One is if you had something in the past, that’s fine; but you can say that you had that in the past but you are actually comfortable with where the general Committee is, and that way you can soften it. Two is a case in which somebody like me has not actually publicly talked about an inflation goal. In that case, I would keep my mouth shut on the issue. In terms of this initial launch—again emphasizing the fact that there really is a lot of consensus on the Committee because we know that the press loves to create the opposite of consensus because it sells newspapers—the more we can be supportive and to the extent that we can look unified on this, the better off we are. I sense that is actually where the Committee is, so I would encourage it in this process.

CHAIRMAN BERNANKE. Governor Kroszner.

MR. KROSZNER. I just wanted a clarification. In the explanation, will we say that the projections are based on what we have done? For example, today, given that we are having a policy move and I am not sure that everyone around the table had anticipated that move today in their path, will we be articulating that these are not the numbers that we came into the meeting with, but these are the numbers that we think after the policy action has been taken?

CHAIRMAN BERNANKE. Yes, let’s do that because it will be more consistent with the statement. So let me ask everyone to rethink their risks conditional on our policy move today.

MR. KROSZNER. Thank you.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN GEITHNER. Sorry, Mr. Chairman, two points. One is a concern to which I have no solution. The chart that is now called chart 1, which has evolved over time, has a slight disadvantage, because it doesn't have fans around it because we all didn't like the fans, of having the sense of a pretty narrow range of likely outcomes for the future. I just wonder whether anybody is uneasy, given the relatively low probability that we are going to end up within those over time. I don't have a solution to this. I was wondering whether, if you changed the scale—[laughter]. This is a concern with no real suggested solution—I apologize. My second point is more significant. Bill, I think you asked a good question. Mr. Chairman, another question that is interesting is, when asked whether the world should interpret the central tendency of the Committee at a three-year horizon for PCE inflation as the rate that is consistent with the Committee's long-run view of price stability, how will you answer it?

CHAIRMAN BERNANKE. It represents the diversity of views on the Committee about that, with the additional caveat that not everyone may necessarily believe that we will approach their ideal level of price stability even in three years, conceivably. So it is a mixture of elements, and that's what I will talk about. Again, if you would like to look at the speech—

VICE CHAIRMAN GEITHNER. No. I think that is consistent with how it is described and what is discussed, but it just goes to the point that, Bill, you raise, which is for some of you your optimal horizon is always going to be two years or three years. But you said all that could be said, I think, about that.

MR. HOENIG. Mr. Chairman?

CHAIRMAN BERNANKE. Yes.

MR. HOENIG. I'm sorry, but I need to understand what you just implied. Are we to go back now and redo our projections for this meeting under the assumption that we took the action today?

CHAIRMAN BERNANKE. If you wouldn't mind, yes.

MR. MADIGAN. And appropriate policy going forward.

MR. HOENIG. Okay. But it's not what I based my decision on.

VICE CHAIRMAN GEITHNER. Tom, if you took a view about what appropriate policy was last Friday and you have a chance now to assess, in light of what the Committee did, what appropriate policy is going forward, whether that has changed, and what implications that change has for your forecast—isn't that the way to say it?

MR. HOENIG. But the whole point of the process was to prepare us for this meeting, and now I am going to go back and reassess the process I went through in light of what took place in this meeting. If everyone is comfortable with doing that, then I would be happy and able to do it. At least I understand that we are all going in the same direction that way. So I am fine with it, as long as that is what, in fact, we're doing.

MR. PLOSSER. But the Greenbook won't be changed. This confuses me a bit. I wasn't quite clear—I thought I was, but I guess I wasn't.

CHAIRMAN BERNANKE. We can do whatever we want as long as we all agree to do the same thing. [Laughter]

MR. HOENIG. If that's it, then I'll go back and do it. I just want to make sure that's what we all agree we're going to do. If that is, then fine; but I didn't have that understanding before you made that statement.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Is there an inconsistency in adjusting a forecast after the meeting when the minutes are the minutes of the meeting and the forecasts informed the judgments that were expressed in the meeting?

CHAIRMAN BERNANKE. No, I don't think so. It is based on the information in the meeting, including the data we received this morning.

MR. LOCKHART. I'm not sure I see minutes reflecting subsequent actions or subsequent decisions.

MR. FISHER. We're releasing this with the minutes?

CHAIRMAN BERNANKE. We're releasing it with the minutes. It's not part of the minutes.

MR. LOCKHART. Oh, okay. Good point.

MR. HOENIG. It's like an annual report that has updated information in it. As long as everyone is doing the same thing.

CHAIRMAN BERNANKE. I hope, President Hoenig, that you won't be in this situation too often. [Laughter]

MR. HOENIG. I've got a long record, and I haven't been in this situation too often. But I have been in this situation before.

CHAIRMAN BERNANKE. Any other questions or comments? May I have the sense of the Committee to proceed with the release? Thank you very much. I appreciate it, and I appreciate everyone's hard work and cooperation. I think this is a very important step, and I am very pleased with the outcome. Let me just describe now the sequence of events. I will now give you the date of the next meeting, and I will adjourn the meeting. Laricke Blanchard is here

to talk briefly about congressional issues for us, and the lunch for Cathy Minehan begins at 12:30. Okay? So our next meeting will be Tuesday, December 11. The meeting is adjourned.

END OF MEETING